# VoiceOver

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# Brailliant

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**April D Brown**

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# VoiceOver with the Brailliant Braille Display

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Connect with April D Brown

# Acknowledgements

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I would like to send out a special acknowledgement to Tim Snifffen, author of Mastering the Mac with VoiceOver. His dedication to a full-fledged manual encouraged me to continue when I couldn't hear and comprehend spoken VoiceOver. Hence, this manual.

# Mac VoiceOver and The Brailliant Braille Display

   This particular guide is for using the Brailliant Braille display with the Mac's VoiceOver screen reader program. It does not cover using the Brailliant Braille display with the iPhone, iPad, or any other screen reader.

   Many of the commands available on the Mac will be available on the iPad and the iPhone.

   Many people have asked: Why create this manual?

   First, although most adults can use a computer, by the time their vision decreases to the point they need to rely on a screen reader, their minds aren't as quick to jump through the hoops to learn it instantly. Learning a screen reader for the first time takes a lot of knowledge and recognition of definitions that are not normally used in any profession, not even in web development.
   In fact, one of the main issues, is there is no known glossary of screen reader terms. What is a webspot? And how is a landmark (a building) on a webpage? A combo box? Is that something food and clothes are stored in? A rotor? That's a gear rotating inside a machine. How is that in a screen reader? And the whole "Interaction" thing that VoiceOver centers itself around. If only a glossary existed, most people could potentially eventually figure out how, and where, to use most commands.
   In general, you can find many lists of commands on the internet.
   However, there is no guide of when, or where, to use those commands.
   Nor is there any definition of what the terms in those commands mean.
   They are just a random list of keyboard commands. And sometimes gestures.
   Which leads to another point.
   How does waving at the computer work?
   Until two years ago, when iPhones and iPads added gestures, most people knew touching a screen would damage it.

   Most of these questions will be answered. Some in more depth than others. Several programs will be thoroughly examined. Other

programs at least in part.

A glossary is included. This glossary will include definitions to the best of my ability. And a list of keyboard commands that do not include the braille display as a backup.

Programs change regularly. These directions may be outdated by the time you receive this manual. With enough information presented, you should be able to figure out an updated workaround.

The goal of this guide is to create a foundation to build on. As programs change, commands may change. By building connections, communicating with your computer, and other people, will still be possible for newly blind, or newly deafblind adults.
Photos are included. Many people who will be using this manual may retain some sight. Family members, or friends, may assist in learning to use VoiceOver. Pictures will improve the process. And help fix glitches that the blind adult may not be able to find verbally, or with their new knowledge of braille.

Originally published in June 2016 - VoiceOver with a Mac Mini using operating system El Capitan and a Brailliant Braille Display. Last updated for Sierra, OSX fall of 2016.

# Foundation to Using Screen Readers

## What is a Screen Reader?

It is not what most people think. It's not a matter of moving the mouse to a page, and having the screen reader read it aloud to you.

In fact, most people who use a screen reader regularly may not even have a mouse hooked to their computer. It simply doesn't help them. And, it can cause issues with the screen reader bouncing if the mouse is bumped while the screen reader is talking.

## Scary?

Yes. After spending a quarter of a century using drop down menus and mice to navigate a screen, even thinking about navigating with your ear and a keyboard sounds impossible. Especially if your hearing and comprehension of spoken words isn't excellent.

Enter the braille display.

## What does a braille display do?

A braille display allows the reader to read the screen in braille instead of by eye or ear. This is often closer to the way a person is more accustomed to viewing the screen with the eye. This will become even more true as braille displays begin to display entire pages, rather than a few words on the screen.

## How does a braille display work?

There is a row of braille cells that change as the words on the screen change, a braille keyboard, and a variety of command keys that vary based on the particular display.

# Can anyone learn to use a braille display?

Yes. However, learning braille is a prerequisite. Or, learn braille as you learn the braille display, and you may learn it faster as you can adjust what you read, and read clearer than on a paper braille page.

# Is it difficult to learn braille?

It doesn't have to be. Braille is a system of symbols created by raised dots, much as letters are symbols. Both sets of symbols are used to create words, sentences, and paragraphs, through the use of grammar and punctuation. Braille is typically taught by counting. Not the easiest method. It can be learned by symbol as well, though braille teachers do not teach braille as symbols. Learn it before you need it. Especially if you have moderate, or severe, hearing loss.

# What is the whole Interaction thing that VoiceOver centers around?

The concept of Interaction would be simpler if it were called "start" and "stop." After all, Interaction usually occurs in pairs.

As a previously visual person, your eye read the screen and skimmed the mouse across the page. If you wanted to click a button, you clicked it with your mouse and the button was pushed. With VoiceOver, you may, or may not, want to click each button the screen reader reads. Spoken VoiceOver moves very fast, and dances through buttons and links quickly. By the time the brain realizes VoiceOver has reached the link the listener wants to click on, the program may already be focused several links on down the list. If VoiceOver randomly clicked each link it came across, the listener would have great difficulty navigating the pages. So, Interaction makes sense in a way. It allows you to choose when you want to start, or stop, an action with a button, menu, or if you want to type in a text field.

# Is automatic interaction a good idea?

Not necessarily.
On a login screen? Sure.
On a web page where it automatically interacts with the navigation? Not necessarily. One webpage in particular is set up to read every single link in the drop down menus of the navigation pane before it goes to the main body of the page. So, VoiceOver reads through about 30 links to go away from the page, before it gets to the actual page's information.

# How does a screen reader view the screen?

A screen reader doesn't see the screen as text, images, and buttons as our eyes do. They see the screen as lines of code. And read it in the order the code is in. Which isn't always helpful. It will read out of order, jumping all over the screen before getting to the place you want to go, and to where your eye would land as soon as the screen comes up. It may insist on giving you 100 ways to leave the page you purposefully landed on, before reading the text you went to the page to read.

# Is there a way around that problem?

Yes. That is what the rotor is for. And a few other tools that allow you to skip sections you don't want to read before what you went there to read. However, many of these are only accessible with a trackpad, NumPad, or keyboard.

# Does that mean a braille display will not be an efficient way to read the screen and fully control the computer?

The computer will be fully accessible. It may take longer to access some areas, as some commands do not work on the braille display. Some braille displays will do better than others. Some don't allow certain commands to be made by the braille display, such as select, copy, and paste. Or, they may be allowed on other devices, such as the iPad and iPhone, though not on the Mac itself.

# Will this change?

Yes. Change is always occurring. Too fast to keep up with. If enough people ask for the ability to select, copy, and paste from the braille display, and to access the rotor, as well as other missing commands, eventually, they will be made available to all users on all devices.

## What devices are braille displays compatible with?

Braille displays are compatible with many, though not all, tablets, phones, computers, CCTV's (which enlarge or save text documents), and other devices for the blind and visually challenged to access text, and braille.

## Can a person with low dexterity use VoiceOver?

A few years ago, the answer was no. VoiceOver primarily worked with the keyboard. At least three, and up to five keys, had to be pushed at one time to do anything with it.

Now, there are some command options to decrease the number of keys that have to be pressed simultaneously. As well as gestures on a trackpad.

## How about low dexterity and the braille display?

Much easier than using VoiceOver with a regular keyboard. In fact, a gentle touch is best for the braille dots. Some displays are easier to use than others. Test a few to decide which one works best. And the number of braille symbols does make a difference. Too many, or too few, may make the display more difficult to use. Braille watches only show four characters. Or, a fifth to show morning or night. Some displays contain only 12 characters, so it may only show a few words. Others contain space for 80 characters. Which could be as many as sixteen words, or a whole line of text.

## Can a person with poor memory learn to use a braille display and VoiceOver?

Yes. And with this manual, any forgotten information can be looked up anytime, easily. You won't use every command every day. However, you will remember those you use most often, once you connect them to something you already know.

## Can VoiceOver be turned on and off with the Brailliant braille display?

I have not found a command set that will turn it on and off on the braille display. A keyboard is required to turn it on and off. The keyboard command to turn VoiceOver on is CMD + F5. Until Siri is available on the Mac computer.

# What does the Brailliant braille display look like?

   The top half of the Brailliant braille display is almost like a braille writer. However, the keys are numbered a bit different. The 7 and 8 keys allow more key command options. They are on the outside of the braille typing keys. I'll demonstrate below.

                    7 3 2 1   4 5 6 8

   Next downward are two sets of command keys, downward in a line on each side. In between these, is the main braille display with router keys. The C keys are Command keys.

   C1 32, 40, or 80 router keys   C4
   C2        C5
   C3 32, 40, or 80 braille cells    C6

   There are two centered space keys.

                           Space Space

   On the lower side of the braille display are arrow keys.

           Up Arrow  Left Arrow  Right Arrow  Down Arrow


## Putting the whole Brailliant braille display together:


                        7 3 2 1   4 5 6 8
   C1   32, 40, or 80 router keys   C4
   C2     C5
   C3   32, 40, or 80 braille cells   C6
                           Space  Space
           Up Arrow  Left Arrow  Right Arrow  Down Arrow

# Why am I offering this manual when there isn't one available?

We all deserve hope and dignity.

Too many blind people for whom technology is second nature do not understand, or appreciate, people who actually need the foundation building of a training manual. Some of the comments received when I would ask questions on groups were rather rude, because I couldn't figure it out on my own. The rudest of these, were younger generations, who had been blind from birth, or infancy, and relied on tech training as young children. Somehow, they didn't think adults who had to change from sighted to unsighted would need a few pointers along the path to understanding the unique vocabulary of a screen reader.

Without ever having used a braille display.

Or a screen reader.

Some even said to look up terms online. Only, they never knew a link to define the VoiceOver specific terms, or a working VoiceOver glossary. Most of the terms are not able to be found by an online search. Or, if they are, they only relate to their more normal, expected meaning, not their VoiceOver definition.

Yes, some people need an actual trainer. Most, only need a foundation. Here is a foundation to build upon.

Good luck! You can learn it. You can use it. Whether vocally, or with a braille display. You can maintain your independence.

# VoiceOver and Braille Display Glossary

This glossary is useful both to the new VoiceOver user, and any person helping a first time screen reader user. The average sighted person rarely thinks beyond links, tables, and maybe buttons on a website. Most sighted people don't name these items. They are simply used. However, with VoiceOver, each one has to be used differently. A mouse click is no longer enough. There is no longer any visual information to help the user figure out if it is working or not.

## Braille Keyboard (Braille Display)

Orientation: The eight Buttons at the top of the display.

Purpose: The inner six Buttons can be used to type in braille the same way as a braille writer. All eight together can be used in combination with the space Buttons and command Buttons to give commands to the computer from the braille display. Button 7, on the far left, can be used as a backspace Button. Button 8, on the far right, can be used as an enter Button, sometimes in place of the router Button. The Buttons on the braille keyboard are numbered out of order. Their order is: 7 3 2 1 4 5 6 8.

Interaction: Click keys as needed.

VoiceOver Keypad/Keyboard Command: None.

## Button

Orientation: A Button may look like anything. It may actually look like a button.

Purpose: Most Buttons contain Links. These Links may go to other places on the same website, or to other websites.

Interaction: Click Dot above Button name on Braille Display to choose it. Occasionally, 8 + Space is required.

VoiceOver Keypad/Keyboard Command: Control + Option + Space.

# Checkbox

OBJ

Orientation: A small box that will be empty if not selected. Or filled in with color, or even a checkmark, if selected. Usually followed by a text element description of what it turns off or on.

Purpose: Turns on or off a variety of options. May be used with a list of Checkboxes, in which any combination of them may be off and/or on.

Interaction: Click Dot above Checkbox title on Braille Display to choose it. Occasionally, 8 + Space is required.

   On the braille display a Checkbox generally displays as:
   ( ) Empty Checkbox, or
   (X) Checked Checkbox

VoiceOver Keypad/Keyboard Command: Control + Option + Space.

# Command Keys (Braille Display)

Orientation: The three keys on each side of the display.

Purpose: Allow for a shorthand, single key click for the six most commonly used commands. Can also be used in combination with other keys.

Interaction: Click one or more command keys with, or without, other keys.

VoiceOver Keypad/Keyboard Command: Varies.

# Combo Box

OBJ

^ Control
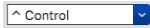
Orientation: Sometimes look like a Button. Sometimes looks like a text field. May have one down arrow on the side.

Purpose: A drop down list. Or a combination of a drop down list and a text field.

Interaction: Very unpredictable. Sometimes this Interaction style works. Sometimes it doesn't. Even on the very same Combo Box.
   3 + 6 + Space to Open the Pop Down List of Items.
   C5 to where it says empty Combo Box.

   If it does not say empty Combo Box - click Combo Box once, and then repeat 3 + 6 + Space until it says empty Combo Box, or cycles through the Combo Box Options.

   Click Combo Box on Braille Display.
   Arrow through choices.
   Click choice on display.
   C4 to Exit Combo Box.
   C4 to Exit Combo Box. (Yes twice).

   It is possible to use the keyboard commands: Control + Option + Space, and then Right or Left Arrow through choices.

VoiceOver Keypad/Keyboard Command: Control + Option + Space.

# HTML Area

Orientation: Often the primary Web Page area. The area inside the navigation Tables that contains the heart of the website. This area may be accessible with the rotor.

Purpose: To display the main part of a web page. Pictures, Text, Links, and more.

Interaction: C6 to Enter (Interact) with HTML area.
   Use arrow keys to navigate HTML area.
   C4 to Exit (Interact) HTML area.

VoiceOver Keypad/Keyboard Command: Control + Option + Space.

# Interaction

Orientation: Invisible. A combination of commands that allow the individual to read, write, or click a Link or Button.

Purpose: Start and stop focusing on a page element. Interaction usually occurs in pairs.

Interaction: Multiple.

VoiceOver Keypad/Keyboard Command: Multiple.

# Image

Orientation: Primarily pictures. May be an icon. May contain links.

Purpose: A visual representation. May contain links to profiles, web pages, or more.

Interaction: Click Dot above Link on Braille Display to choose it. Occasionally, 8 + Space is required.

VoiceOver Keypad/Keyboard Command: Unknown.

# List

Orientation: A List of objects, often in a Table type format.

Purpose: Often include Links to more detailed information.

Interaction: Click Dot above List choice on Braille Display to choose it. Occasionally, 8 + Space is required.

   Sometimes, usually in a Table, it automatically interacts. In which case, you C4 to exit the Table once you reach the item in the List you want.

VoiceOver Keypad/Keyboard Command: Varies.

## Link

Orientation: A Link is usually a different colored text, and may have a line under it.

Purpose: Links may go to other places on the same website, or to other websites.

Interaction: Click Dot above Link on Braille Display to choose it. Occasionally, 8 + Space is required.

VoiceOver Keypad/Keyboard Command: Control + Option + Space.

# Menu Button

OBJ
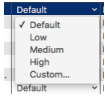
Orientation: Appears to be a Button, often with a drop down menu.

Purpose: An opportunity to choose (usually) a single choice in a menu.

Interaction: Click Dot above Menu Button name on Braille Display to choose it. Occasionally, 8 + Space is required. Down arrow through choices. Click Dot above menu choice on Braille Display to choose it.

VoiceOver Keypad/Keyboard Command: Control + Option + Space.

# Pop Up Button

OBJ

Orientation: Similar to a Menu Button. May contain an up and down arrow, often on the right hand side.

Purpose: An opportunity to choose (usually) a single choice in a menu.

Interaction: Click Dot above Pop Up Button on Braille Display to choose it. Occasionally, 8 + Space is required.

VoiceOver Keypad/Keyboard Command: Control + Option + Space.

# Radio Button

OBJ

Orientation: Usually a group of round Buttons.

Purpose: Within the group of Radio Buttons - only one Button can be turned on at a time. When one is clicked on, the previous selected Button is clicked off automatically.

Interaction: Click Dot above Radio Button on Braille Display to choose it. Occasionally, 8 + Space is required.

VoiceOver Keypad/Keyboard Command: Control + Option + Space.

# Rotor

Orientation: A mini-app. Invisible until keyboard combination is clicked. Looks like a compass with words instead of directions. Not all options are available in all apps or programs.

Purpose: To allow navigation by varying elements such as Buttons, Headings, or Links.

Interaction: Unknown.

VoiceOver Keypad/Keyboard Command: Control + Option + U.

## Rotor Settings:

Auto Web Spots - Personally created link to a chosen place on a web page.
Buttons - Links to various places on the webpage or internet.
Checkboxes - Turn controls or options on or off.
Form Controls - Any modifiable aspect of a form, may include Checkboxes, Radio Buttons, Buttons, or text fields.
Frames - Help break the web page up into manageable areas.
Headings - Section titles.
Landmarks - Types of content - Banners, complementary (sidebar), content info (extras like copyright), main, navigation, search.
Links - Links to various places on the page, website, or internet.
Lists - A List may be a clickable group of items.
Lines - A single row of text.
Live Regions - Content refreshes without refreshing entire page.
Non-Visited Links - Links that have not been clicked.
Radio Groups - A group of radio Buttons.
Static Text - Unsure.
Tables - An element with rows and columns that may contain text, links, Checkboxes, menu Buttons, and more.
Text Fields - Places to type in text.
Visited Links - Links that have been clicked.
Webspots - Items that are grouped together.

Interaction: Unknown.

VoiceOver Keypad/Keyboard Command: Arrow keys.

## Router Keys (Braille Display)

Orientation: Tiny plastic dots above each braille cell. Same color as the majority of the braille display.

Purpose: Works like a mouse click to choose Buttons or Links.

Interaction: Click to choose an item.

VoiceOver Keypad/Keyboard Command: Several.

## Scroll Area

Orientation: A text area, often in text documents or composition programs.

Purpose: A place to write and edit text for others to read.

Interaction: C6 to Enter (Interact) with a Scroll Area.
Use arrow keys to navigate the Scroll Area.
C4 to Exit (Interact) with Scroll Area.

VoiceOver Keypad/Keyboard Command: Type. Or Control + Option + Shift + Down Arrow to enter and Control + Option + Shift + Up Arrow to exit.

# Slider



Orientation: Usually a horizontal line.

Purpose: Increments to increase or decrease a setting. Often used in sound settings.

Interaction: Click the button above sld (slider) on the braille display, the slider will move up by increments.
   Or, you may choose to use
   C6 to Enter (Interact) with Slider.
   Use arrow keys to navigate the increments.
   C4 to Exit (Interact) with Slider.

VoiceOver Keypad/Keyboard Command: Control + Option + Shift + Down Arrow.

## Slider Text Element

Orientation: Words, usually above or below the Slider.

Purpose: These words describe the increments, such as louder or softer for sound.

Interaction: Not Interactable.

VoiceOver Keypad/Keyboard Command: No Interactions.

## Space Keys (Braille Display)

Orientation: The two long keys under the braille cells at the bottom of the display.

Purpose: Used with other keys in combination for commands. Also used for spacing when typing in braille.

Interaction: Click keys.

VoiceOver Keypad/Keyboard Command: Space bar when typing words.

# Stepper

[OBJ]

⊙

Orientation: An up and down arrow by itself, usually beside a Button.

Purpose: The stepper allows the item to be increased or decreased by specific increments. These increments are not always visible on the braille display.

Interaction: C6 to Enter (Interact) with Stepper.
  Use arrow keys to navigate the Stepper.
  C4 to Exit (Interact) with Stepper.

VoiceOver Keypad/Keyboard Command: Control + Option + Shift + Down Arrow.

# Tab

[OBJ]

Hints

Orientation: Small Buttons in a row at the top of the page.

Purpose: Contain links to subpages of the current page.

Interaction: Click Dot above Tab name on Braille Display to choose it. Occasionally, 8 + Space is required.
  Sometimes, Tabs require active interaction. C6 to interact with Tab. Arrow to the sections of the tab.

VoiceOver Keypad/Keyboard Command: Control + Option + Space.

## Table

Orientation: A usually visible element with rows and columns.

Purpose: May contain Text, Links, Checkboxes, Menu Buttons, and more.

Interaction: C6 to Enter (Interact) with Table.
   Use arrow keys to navigate the Rows.
   C4 to Exit (Interact) with Table.

VoiceOver Keypad/Keyboard Command: Control + Option + Shift + Down Arrow.

## Text Element

Orientation: A line or more of unchangeable text.

Purpose: May be a definition, an explanation, or a label.

Interaction: C6 to Enter (Interact) with a Text Element.
   Use arrow keys to navigate the Text Element.
   C4 to Exit (Interact) with Text Element.

VoiceOver Keypad/Keyboard Command: No Interaction.

## Text Field

Orientation: A small area - often a line or a rectangle.

Purpose: A place to make notes, or change an element.

Interaction: C6 to Enter (Interact) with Text Field.
   Use arrow keys to navigate the Text Field.
   C4 to Exit (Interact) with Text4 Field.

VoiceOver Keypad/Keyboard Command: Type. Or Control + Option + Shift + Down Arrow to enter and Control + Option + Shift + Up Arrow to exit.

# Thumb Keys (Braille Display)

Orientation: The four keys on the front side of the braille display, where the thumbs naturally land when the hand is on the braille display. The 80 cell braille display has 6 thumb keys.

Purpose: Arrow keys Up, Down, Right, or Left.

Interaction: Click keys.

VoiceOver Keypad/Keyboard Command: Arrow keys.

# Accessibility Pane

The accessibility pane is likely the first place you will go to adjust settings on your Mac. The good thing about this is, you can practice most of the interaction styles, except those that are web browser dependent, without leaving these panes. Due to its complexity, VoiceOver Settings will be covered below the rest of the items in the main Accessibility Pane.

Unless stated otherwise, Click Dot above Setting Choice on Braille Display to choose it.

Unless stated otherwise, navigation is done by clicking the right arrow, or left arrow to go back one item. The up and down arrows may not reach Buttons, or other parts of the screen in the same order as the right and left arrows.

If you click the button above sld (slider) on the braille display, the slider will move up by increments. Or, you may choose to use
C6 to Enter (Interact) with Slider.
Use arrow keys to navigate the increments.
C4 to Exit (Interact) with Slider.

Each section will be gone into greater detail in a later screen. Screenshots will be available.

# Locate

The icon for the Accessibility Panes is a blue circle with a person with arms and legs outstretched. It is inside System Preferences, which is a grey square with a grey gear.

C1 + C4 + C5 (Go to Dock).
Right Arrow to LaunchPad.
Click Dot above word Launchpad on Braille Display to choose it.
Right Arrow to System Preferences.
Click 3 + 6 + Space to choose System Preferences.
Press C6 to Start Interacting with Scroll Area.
Down Arrow to Accessibility.
Click Dot above Accessibility on Braille Display to choose it.

Or:

C1 + C3 + C4 - Go to Menu.
Down Arrow to System Preferences.
Click Dot above word System Preferences on Braille Display to choose it.
Press C4 to Stop Interacting with Toolbar.
Down Arrow.
Press C6 to Start Interacting with Scroll Area.
Right Arrow to desired Accessibility.
Click Dot above Accessibility on Braille Display to choose it.
Down Arrow to Desired Setting.

# Orientation to the Accessibility Pane

Table
C6 to Enter (Interact) with Table.
Use arrow keys to navigate the rows.
C4 to Exit (Interact) with Table.

Vision (Text Element)
Displays (Image and Text Element - no need to Interact. Choose by C6 to Exit the Table.)
Zoom (Image and Text Element - no need to Interact. Choose by C6 to Exit the Table.)
VoiceOver (Image and Text Element - no need to Interact. Choose by C6 to Exit the Table.)

Media (Text Element)
Descriptions (Image and Text Element - no need to Interact. Choose by C6 to Exit the Table.)
Captions (Image and Text Element - no need to Interact. Choose by C6 to Exit the Table.)

Hearing (Text Element)
Audio (Image and Text Element- no need to Interact. Choose by C6 to Exit the Table.)

Interacting (Text Element)
Keyboard (Image and Text Element - no need to Interact. Choose by C6 to Exit the Table.)
Mouse & Trackpad (Image and Text Element - no need to Interact. Choose by C6 to Exit the Table.)
Switch Control (Image and Text Element - no need to Interact. Choose by C6 to Exit the Table.)
Dictation (Image and Text Element - no need to Interact. Choose by C6 to Exit the Table.)

# On every Accessibility Pane:

Show Accessibility status in the menu bar - Checkbox (Click Dot above word Accessibility on Braille Display to choose it.)
Help - Button (Click Dot above word Help on Braille Display to choose it.)

Unless stated otherwise, Click Dot above Setting Choice on Braille Display to choose it.

If you click the button above sld (slider) on the braille display, the slider will move up by increments. Or, you may choose to use
C6 to Enter (Interact) with Slider.
Use arrow keys to navigate the increments.
C4 to Exit (Interact) with Slider.

# Brailliant Display Accessibility Pane
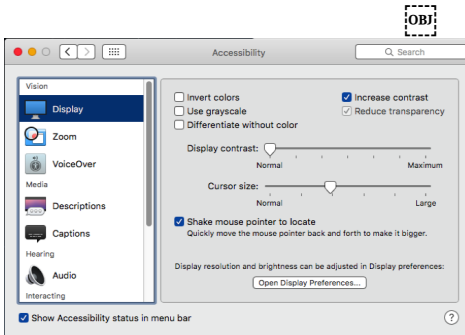


# Display Screen

Invert Colors - Checkbox
Increase Contrast - Checkbox
Use grayscale - Checkbox
Reduce Transparency - Checkbox
Differentiate without color - Checkbox

Display Contrast - Slider
Normal - Slider Text Element (No need to Interact.)
Maximum - Slider Text Element (No need to Interact.)

Cursor Size - Slider
Normal - Slider Text Element (No need to Interact.)
Large - Slider Text Element (No need to Interact.)

Shake Mouse pointer to locate - Checkbox

Open Display Preferences - Button (Opens Display Preferences Pane in System Preferences.)
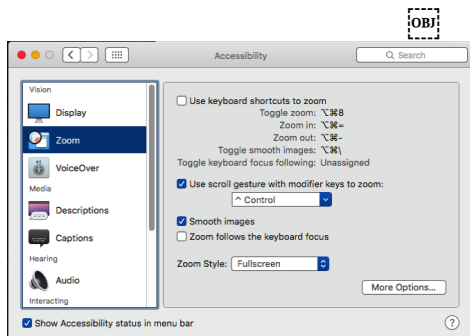
## Zoom Screen

Use keyboard shortcuts to zoom - Checkbox

Toggle Zoom - Text Element (No need to Interact.) Option + Command + 8

Zoom in - Text Element (No need to Interact.) Option + Command + =

Zoom out - Text Element (No need to Interact.) Option + Command + -

Toggle Smooth images - Text Element (No need to Interact.) Option + Command + \

Toggle keyboard focus - Text Element (No need to Interact.) Unassigned

Use scroll gesture with modifier keys to zoom - Checkbox.

Gesture Choice - Combo Box.

A note about combo boxes. They do not appear accessible by braille display. If you know the options, you can interact (C6) and type the change in the box, and then C4 to exit.

Smooth Images - Checkbox.

Zoom follows the keyboard focus - Checkbox.

Zoom Style - Pop Up Button.

More Options - Button.
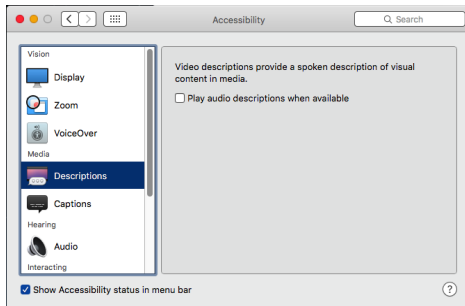
# Descriptions Screen

Definition - Text Element.
Play audio descriptions when available - Checkbox.
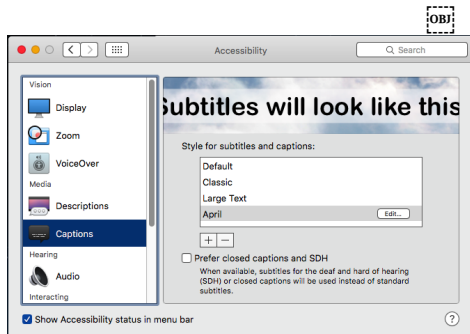
## Captions Screen

Definition - Text Element.
(C6 to Enter (Interact) with Table.
Use arrow keys to navigate the rows.
C4 to Exit (Interact) with Table.)
Default.
Classic.
Large Text.
Personalized Subtitles.

Plus - Button - Allows you to create your own Subtitle set. Use your knowledge of pop up boxes and Checkboxes to complete these screens.
Minus - Button.
Prefer closed cations and SDH.

If you click on the Plus Button it brings up a new pane which includes the following:
Style Name - text field in a scroll area.
Etched divider - image.

Background Color - Pop Up Button inside of a scroll area.
Allow Video to override - Checkbox.
Background Opacity - Pop Up Button inside of a scroll area.
Allow Video to override - Checkbox.

Etched Divider - Image.
Text Color - Pop Up Button inside of a scroll area.
Allow Video to override - Checkbox.
Text Size - Pop Up Button inside of a scroll area.

Allow Video to override - Checkbox.
Font - Pop Up Button inside of a scroll area.
Allow Video to override - Checkbox.
Text Opacity - Pop Up Button inside of a scroll area.
Allow Video to override - Checkbox.
Text Edges - Pop Up Button inside of a scroll area.
Allow Video to override - Checkbox.
Highlight Color - Pop Up Button inside of a scroll area.
Allow Video to override - Checkbox.
Highlight Opacity - Pop Up Button inside of a scroll area.
Allow Video to override - Checkbox.

Etched Divider - Image.
Mono spaced serif - Pop Up Button inside of a scroll area.
Proportional serif - Pop Up Button inside of a scroll area.
Mono spaced - Pop Up Button inside of a scroll area.
Proportional - Pop Up Button inside of a scroll area.
Casual - Pop Up Button inside of a scroll area.
Cursive - Pop Up Button inside of a scroll area.
Small Capital - Pop Up Button inside of a scroll area.

Cancel - Button.
Okay - Button.
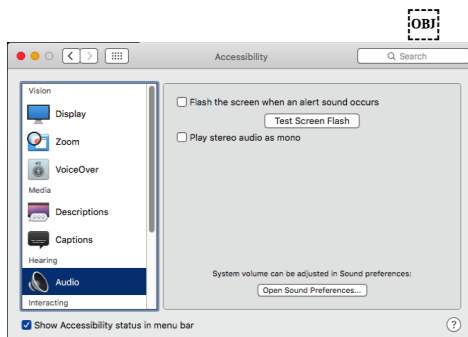


## Audio Screen

Flash the Screen when an alert sound occurs - Checkbox.
Test Screen Flash - Button.
Play Stereo as Mono - Checkbox.
(Open Sound Preferences - Button - Opens Sound Preferences in System Preference.)
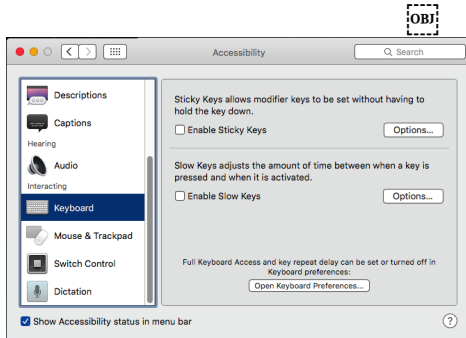
**Keyboard Screen**

Enable Sticky Keys - Checkbox.
Options - Button.
Press the Shift key five times to toggle Sticky Keys
 - Checkbox.
Beep when a modifier key is set - Checkbox.
Display pressed keys on screen - Checkbox and
 Pop Up Menu (Click Button on Display).
Cancel - Button.
OK - Button.

Enable Slow Keys - Checkbox.
Options - Button.
Use click Key Sounds - Checkbox.
Acceptance Delay - Slider.
Short - Slider Text Element.
Long - Slider Text Element.
Cancel - Button.
OK - Button.

Open Keyboard Preferences - Button - (Opens
Keyboard Pane in System Preferences.)
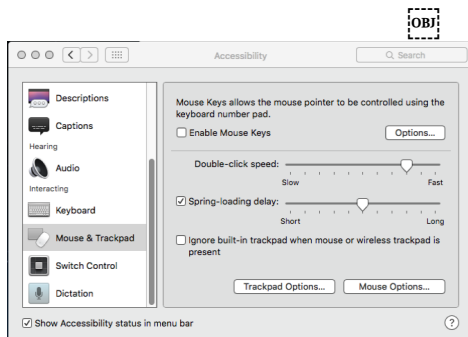
## Mouse & Trackpad Screen

Enable Mouse Keys - Checkbox.
Options - Button.
Press the Option key five times to toggle Mouse Keys -
   Checkbox.
Ignore built-in trackpad when Mouse Keys is on - Checkbox.
Initial Delay - Slider.
Short - Slider Text Element.
Long - Slider Text Element.
Maximum Speed - Slider.
Slow - Slider Text Element.
Fast - Slider Text Element.
Cancel - Button.
OK - Button.

Double Click Speed - Slider.
Slow - Slider Text Element.
Fast - Slider Text Element.
Spring-loaded delay - Checkbox and a Slider.
Short - Slider Text Element.
Long - Slider Text Element.
Ignore built-in trackpad when mouse or wireless trackpad is
present - Checkbox.
Trackpad Options - Button Opens Regular System Preferences
Trackpad Pane.
Mouse Options - Button Opens Regular System Preferences
Mouse Pane.
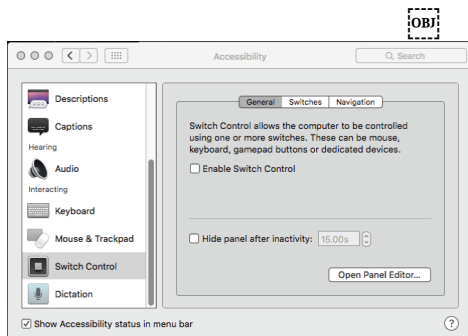
# Switch Control - 3 Tabs

Not going to cover this one. I do not have any knowledge of switch control. Click Dot above Tab Name on Braille Display to choose it. Right Arrow to Body of Tab.

## General Tab

Enable Switch Control - Checkbox.
Hide Panel after inactivity - Checkbox, Text Field, and Stepper.
Open Panel Editor - Button.

## Switches Tab

Table.
Buttons.
Checkboxes.

## Navigation Tab

Pop Up Buttons and Button.
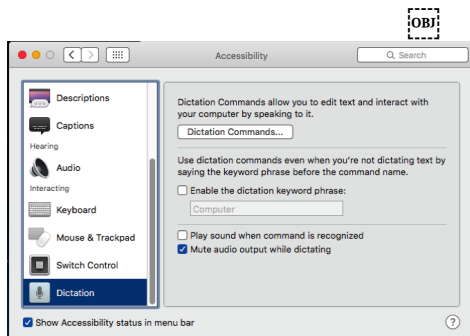
## Dictation Screen

Dictation Commands - Button.

Opens into a
Search Field - Text Field.
Table of Commands -
(C6 to Enter (Interact) with Table.
Use arrow keys to navigate the rows.
C4 to Exit (Interact) with Table.)
Enable Advanced Commands - Checkbox.
Select - Text Element.
Plus - Add a command - Button.
Minus - Delete a Command - Button.
Done - Button.

Enable dictation keyword phrase - Checkbox and Text Field.
Play sound when command is recognized - Checkbox.
Mute audio output while dictating - Checkbox.

# VoiceOver Screen

## Locate

   The icon for the Accessibility Panes is a blue circle with a person with arms and legs outstretched. It is inside System Preferences, which is a grey square with a grey gear.

   C1 + C4 + C5 (Go to Dock).
   Right Arrow to LaunchPad.
   Click Dot above word Launchpad on Braille Display to choose it.
   Right Arrow to System Preferences.
   Click 3 + 6 + Space to choose System Preferences.
   Press C6 to Start Interacting with Scroll Area.
   Down Arrow to Accessibility.
   Click Dot above Accessibility on Braille Display to choose it.
   C6 to Start Interacting with the Table.
   Down Arrow to VoiceOver.
   C4 to Stop Interacting with the Table.
   Right Arrow to VoiceOver tab to begin working with VoiceOver.

   Or:

   C1 + C3 + C4 - Go to Menu.
   Down Arrow to System Preferences.
   Click Dot above word System Preferences on Braille Display to choose it.
   Press C4 to Stop Interacting with Toolbar.
   Down Arrow.
   Press C6 to Start Interacting with Scroll Area.
   Right Arrow to desired Accessibility.
   Click Dot above Accessibility on Braille Display to choose it.
   C6 to Start Interacting with the Table.
   Down Arrow to VoiceOver.
   C4 to Stop Interacting with the Table.
   Right Arrow to VoiceOver tab to begin working with VoiceOver.

# Orientation to the VoiceOver Pane

Unless stated otherwise, Click Dot above Setting Choice on Braille Display to choose it.

Unless stated otherwise, navigation is done by clicking the right arrow, or left arrow to go back one item. The up and down arrows may not reach Buttons, or other parts of the screen in the same order.

If you click the button above sld (slider) on the braille display, the slider will move up by increments. Or, you may choose to use
C6 to Enter (Interact) with Slider.
Use arrow keys to navigate the increments.
C4 to Exit (Interact) with Slider.

# VoiceOver on Accessibility Screen
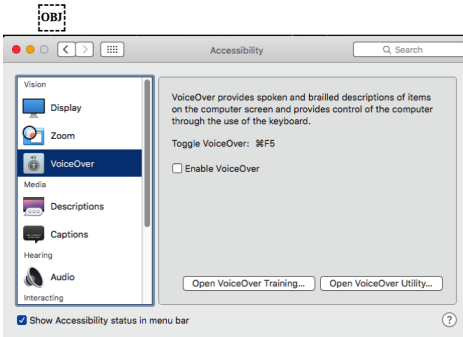


Explanation of VoiceOver - Text Elements
Toggle VoiceOver: Command F5 - Text Element
Enable VoiceOver - Checkbox.
Open VoiceOver Training - Button.

Open VoiceOver Utility - Button.

Show Accessibility status in the menu bar - Checkbox
Help - Button

# VoiceOver Utility
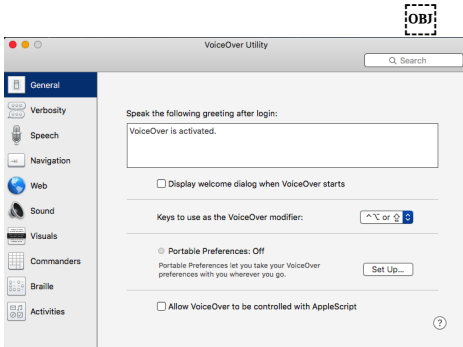


C6 to Start Interacting with the Table.
Down Arrow to Section.
C4 to Stop Interacting with the Table.
Right Arrow to Tab to begin working with VoiceOver sections.

General
Verbosity
Speech
Navigation
Web
Sound
Visuals
Commanders
Braille
Activities

# General Screen

Speak the following greeting after login - Text Element.
Welcome box - Edit Text Field. Type your desired welcome message. Right arrow to accept it. Changed text does not appear in zoom pane.

Display welcome dialog when VoiceOver starts - Checkbox.
Keys to use as VoiceOver modifiers - Pop Up Button.
Portable Preferences - Image and Text Element.
Set up - Button.
Allow VoiceOver to be controlled with Apple Script - Checkbox.

# Verbosity Screen - 5 tabs

## Click Tab on Display to choose it
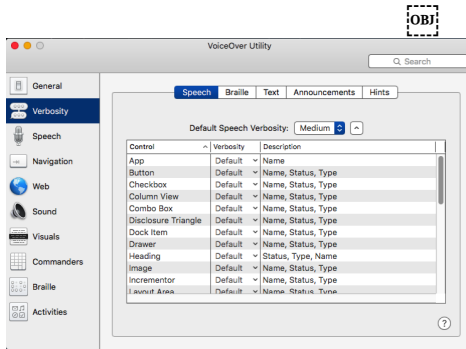


## Speech Tab

Unless stated otherwise, Click Dot above Tab Name on Braille Display to choose it. Right Arrow to Body of Tab.

Default Speech Verbosity - Pop Up Button.
Additional Speech Verbosity Settings - Arrow - Checkbox.
(C6 to Enter (Interact) with Table.
Use arrow keys to navigate the rows.
C4 to Exit (Interact) with Table.)
Control - Text Fields.
Verbosity - Menu Buttons.
Description - Text Field.
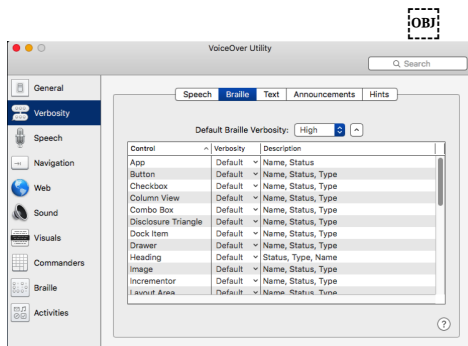
# Braille Tab

Unless stated otherwise, Click Dot above Tab Name on Braille Display to choose it. Right Arrow to Body of Tab.

Default Speech Verbosity - Pop Up Button.
Up Arrow - Additional Speech Verbosity Settings - Checkbox (C6 to Enter (Interact) with Table.
Use arrow keys to navigate the rows.
C4 to Exit (Interact) with Table.)
Control - Text Fields.
Verbosity - Menu Buttons - (Click Dot above word Verbosity on Braille Display to choose it.)
Description - Text Field.
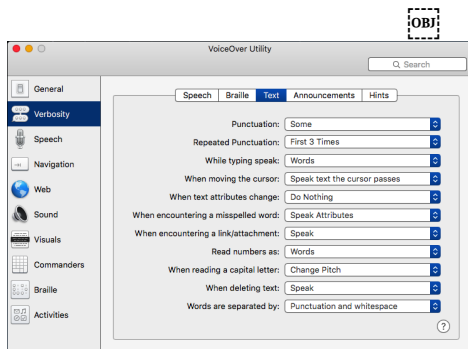
## Text Tab

Unless stated otherwise, Click Dot above Tab Name on Braille Display to choose it. Right Arrow to Body of Tab.

Punctuation - Pop Up Button.
Repeated Punctuation - Pop Up Button.
While typing speak - Pop Up Button.
When moving the cursor - Pop Up Button.
When text attributes change - Pop Up Button.
When encountering a misspelled word - Pop Up Button.
When encountering a link/attachment - Pop Up Button.
Read numbers as - Pop Up Button.
When reading a capital letter - Pop Up Button.
When deleting text - Pop Up Button.
Words are separated by - Pop Up Button.
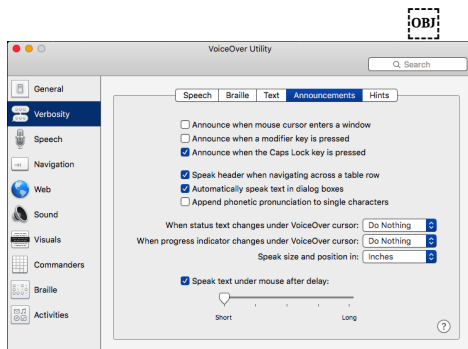
# Announcements Tab

Unless stated otherwise, Click Dot above Tab Name on Braille Display to choose it. Right Arrow to Body of Tab.

Announce when mouse cursor enters a window - Checkbox.
Announce when a modifier key is pressed - Checkbox.
Announce when the Caps Lock key is pressed - Checkbox.
Speak header when navigating across a Table row - Checkbox.
Automatically speak text in dialog boxes - Checkbox.
Append phonetic pronunciation to single characters - Checkbox.
When status text changes under VoiceOver cursor - Pop Up Button.
When progress indicator changes under VoiceOver cursor - Pop Up Button.
Speak size and position in - Pop Up Button.
Speak under mouse after delay - Checkbox.
Slider.
(C6 to Enter (Interact) with Slider.
Use arrow keys to navigate the Slider.
C4 to Exit (Interact) with Slider.)
Short - Slider Text Element.
Long - Slider Text Element.
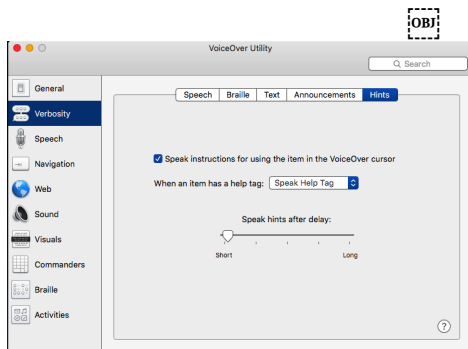
# Hints Tab

Unless stated otherwise, Click Dot above Tab Name on Braille Display to choose it. Right Arrow to Body of Tab.

Speak instructions for using the item in the VoiceOver cursor - Checkbox.

When an item has a help tag - Pop Up Button.

Speak hints after delay - Slider.
(C6 to Enter (Interact) with Slider.
Use arrow keys to navigate the Slider.
C4 to Exit (Interact) with Slider.)
Short - Slider Text Element.
Long - Slider Text Element.

Speech Screen - Two Tabs

# Speech Screen - 2 Tabs
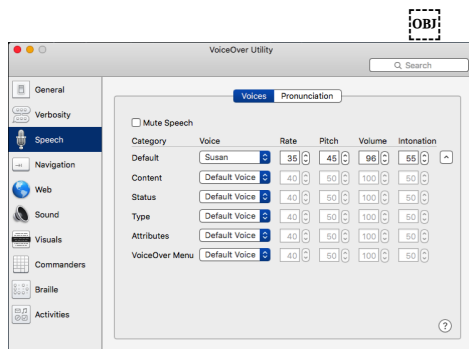
## Voices Tab

Unless stated otherwise, Click Dot above Tab Name on Braille Display to choose it. Right Arrow to Body of Tab.

Mute Speech - Checkbox.

Top Line:
Category - Text Element.
Voice - Text Element.
Rate - Text Element.
Pitch - Text Element.
Volume - Text Element.
Intonation - Text Element.

Default - Text Element.
Voice Name - Pop Up Button, opens into a Menu Button.

Interaction information for the following Steppers:
(C6 to Enter (Interact) with Stepper.
Use arrow keys to navigate the rows.
C4 to Exit (Interact) with Stepper.) Numbers are not visible on Braille Display.

Rate Number - Edit Text and Stepper.
Pitch Number - Edit Text and Stepper.
Volume Number - Edit Text and Stepper.

Intonation Number - Edit Text and Stepper.
Down Arrow (Leads to more options) - Checkbox.

The following Table Rows contain the same steppers:

Content
Status
Type
Attributes
VoiceOver Menu
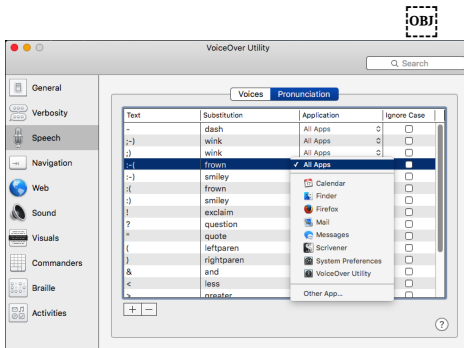


## Pronunciation Tab

Unless stated otherwise, Click Dot above Tab Name on Braille
Display to choose it. Right Arrow to Body of Tab.

(C6 to Enter (Interact) with Table.
Use arrow keys to navigate the rows.
C4 to Exit (Interact) with Table.)

Text - Text Field.
Substitution - Text Field.
Application - Pop Up Button. (Allows you to choose which
application this pronunciation is valid in.)
Ignore Case - Checkbox.

Rows contain a punctuation mark, word, All Apps (Menu Button),
and a Checkbox.

Plus - Add a word or symbol - Button.

Minus - Remove a word or symbol - Button.
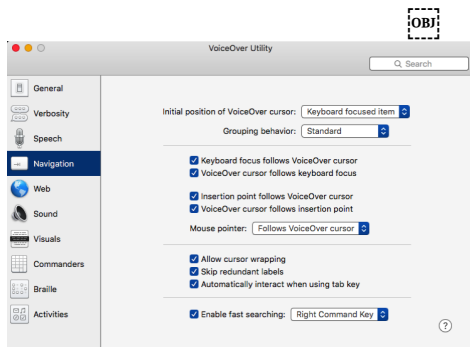


## Navigation Screen

    The Navigation Tab is very important. There are times when some settings have to be changed. In general, to use the braille display easily, all checkboxes will be checked. And the Mouse will follow the VoiceOver cursor.

   Unless stated otherwise, Click Dot above Setting Choice on Braille Display to choose it.

Initial position of VoiceOver cursor - Pop Up Button.
Grouping behavior - Pop Up Button.
Keyboard focus follows VoiceOver cursor - Checkbox.
VoiceOver cursor follows keyboard focus - Checkbox.

Insertion point follows VoiceOver cursor - Checkbox.
VoiceOver cursor follows insertion point - Checkbox.

Mouse pointer - Pop Up Button.

Allow cursor wrapping - Checkbox.
Skip redundant labels - Checkbox.
Automatically interact when using tab key - Checkbox.

Enable fast searching - Pop Up Button.

# Web Screen - Three Tabs

Unless stated otherwise, Click Dot above Tab Name on Braille Display to choose it. Right Arrow to Body of Tab.
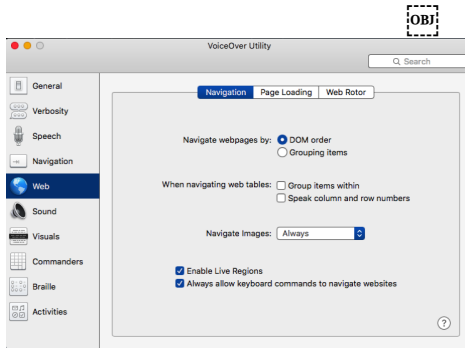


# Navigation Tab

   This page is also very important to get the correct settings for the braille display to work well with Safari. DOM order is the preferred choice.

   Unless stated otherwise, Click Dot above Tab Name on Braille Display to choose it. Right Arrow to Body of Tab.

 Unless stated otherwise, Click Dot above Setting Choice on Braille Display to choose it.
   Navigate webpages by
      DOM order - Radio Button 1 of 2.
      Grouping Items - Radio Button 2 of 2.

   When navigating web Tables
      Group items within - Checkbox.
      Speak column and row numbers - Checkbox.

   Navigate images - Pop Up Button.

   Enable live regions - Checkbox.
   Always allow keyboard commands to navigate websites - Checkbox.
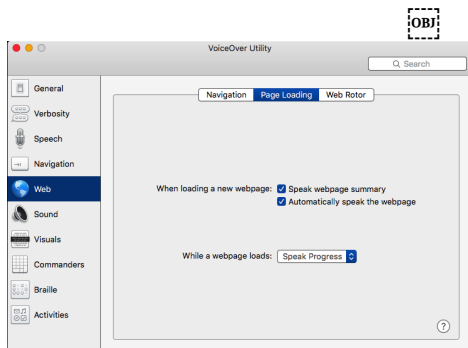
# Page Loading Tab

Unless stated otherwise, Click Dot above Tab Name on Braille Display to choose it. Right Arrow to Body of Tab.

Unless stated otherwise, Click Dot above Setting Choice on Braille Display to choose it.

When loading a new webpage
    Speak webpage summary - Checkbox.
    Automatically speak the webpage - Checkbox.

While a webpage loads - Pop Up Button.

## Web Rotor Tab

Unless stated otherwise, Click Dot above Tab Name on Braille Display to choose it. Right Arrow to Body of Tab.

Unless stated otherwise, Click Dot above Setting Choice on Braille Display to choose it.

Directions on how to order the Table - Text Element.

Table can be ordered in a personal format using the command key and the up or down arrow. Must be done on a standard keyboard.

Links - Checkbox.
Headings - Checkbox.
Form Controls - Checkbox.
Webspots - Checkbox.
Landmarks - Checkbox.
Auto Web Spots - Checkbox.
Lists - Checkbox.
Visited Links - Checkbox.
 Buttons - Checkbox.
Text Fields - Checkbox.
Non-Visited Links - Checkbox.
Radio Groups - Checkbox.
Checkboxes - Checkbox.
Tables - Checkbox.
Frames - Checkbox.
Lines - Checkbox.

Live Regions - Checkbox.
Static Text - Checkbox.
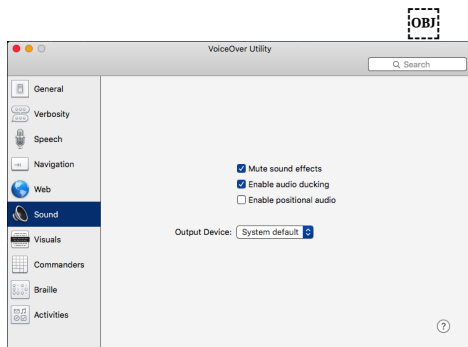
# Sound Panel

Unless stated otherwise, Click Dot above Setting Choice on Braille Display to choose it.

Mute sound effects - Checkbox.
Enable audio ducking - Checkbox.
Enable positional audio - Checkbox.

Output device - Pop Up Button.

# Visuals Panel - Five Tabs

Unless stated otherwise, Click Dot above Tab Name on Braille Display to choose it. Right Arrow to Body of Tab.
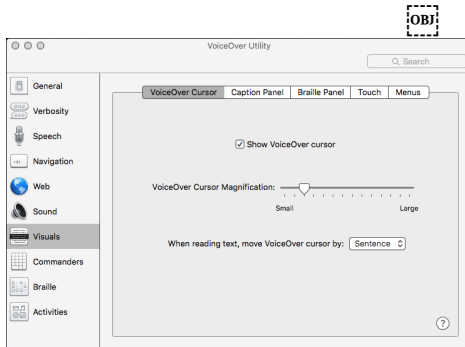


# VoiceOver Cursor Tab

Unless stated otherwise, Click Dot above Setting Choice on Braille Display to choose it.

   Show VoiceOver cursor - Checkbox. This tab creates a clear box that shows where the VoiceOver cursor is. It shows a magnified level of text. This helps semi sighted people, or those who have sighted helpers follow VoiceOver as it skips through a page.

   VoiceOver magnification - Slider.
   (C6 to Enter (Interact) with Slider.
   Use arrow keys to navigate the Slider.
   C4 to Exit (Interact) with Slider.)
   Small - Slider Text Element.
   Large - Slider Text Element.

   When reading text, move VoiceOver cursor by - Pop Up Button.
(Sentence or word)
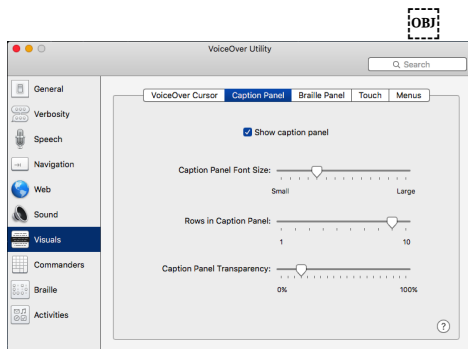
## Caption Panel Tab

Click Dot above Tab Name on Braille Display to choose it. Right Arrow to Body of Tab.
Click Dot above Setting Choice on Braille Display to choose it.

(C6 to Enter (Interact) with Slider.
Use arrow keys to navigate the Slider.
C4 to Exit (Interact) with Slider.)

Show caption panel - Checkbox. The caption panel is another great tool. It creates a black box with white words to display what VoiceOver is reading. It also displays the vital statistics (verbosity) of each item. It can state checkbox, or combo box, giving the listener, or braille display reader, an idea of how to interact with each item. After a short delay, hints are provided for spoken VoiceOver Interaction. Which is why I include them in the glossary, to help the reader figure out which braille display commands are most likely to correspond to spoken VoiceOver commands.

Caption Panel Font Size - Slider.
Small - Slider Text Element.
Large - Slider Text Element.

Rows in Caption Panel - Slider.
1 - Slider Text Element.
10 - Slider Text Element.

Caption Panel Transparency - Slider.

0% - Slider Text Element.
100% - Slider Text Element.
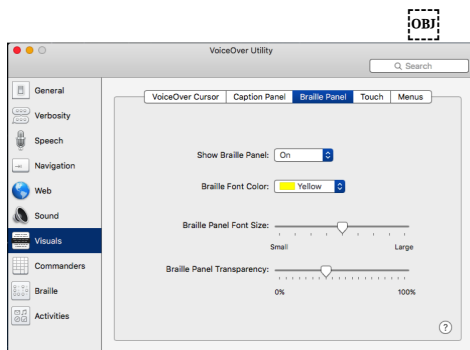


## Braille Panel Tab

Unless stated otherwise, Click Dot above Tab Name on Braille Display to choose it. Right Arrow to Body of Tab.

Unless stated otherwise, Click Dot above Setting Choice on Braille Display to choose it.

(C6 to Enter (Interact) with Slider.
Use arrow keys to navigate the Slider.
C4 to Exit (Interact) with Slider.)

Show Braille Panel - Pop Up Button. The Braille Panel is another great tool. It creates a black box with neon words that display what VoiceOver is sending to the braille display. It also displays truncated vital statistics (verbosity) of each item. For instance, it can state checkbox, or combo box, giving the listener, or braille display reader, an idea of how to interact with each item VoiceOver reads.

Braille Font Color - Pop Up Button. Only a few neon colors available.

Braille Panel Font Size - Slider.
Small - Slider Text Element.
Large - Slider Text Element.

Braille Panel Transparency - Slider.

0% - Slider Text Element.
100% - Slider Text Element.
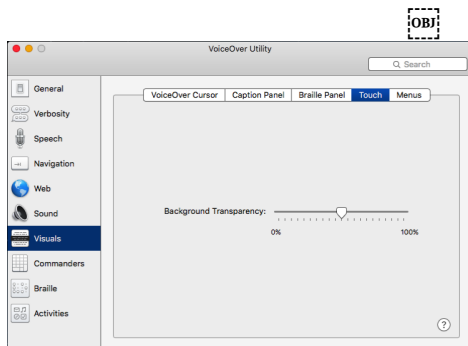
# Touch Tab

Unless stated otherwise, Click Dot above Tab Name on Braille Display to choose it. Right Arrow to Body of Tab.

This Tab is not visible when the Trackpad is not connected to the Mac.

Background Transparency - Slider.
(C6 to Enter (Interact) with Slider.
Use arrow keys to navigate the Slider.
C4 to Exit (Interact) with Slider.)
0% - Slider Text Element.
100% - Slider Text Element.
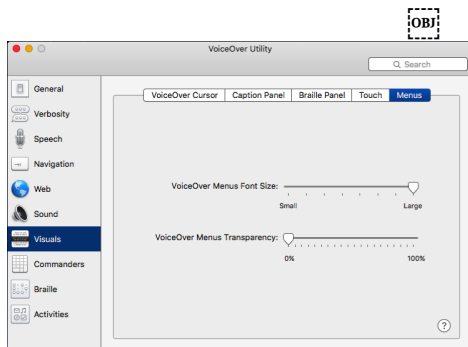
# Menus Tab

Unless stated otherwise, Click Dot above Tab Name on Braille Display to choose it. Right Arrow to Body of Tab.

(C6 to Enter (Interact) with Slider.
Use arrow keys to navigate the Slider.
C4 to Exit (Interact) with Slider.)

VoiceOver Menus Font Size - Slider.
Small - Slider Text Element.
Large - Slider Text Element.

VoiceOver Menus Transparency - Slider.
0% - Slider Text Element.
100% - Slider Text Element.

# Commanders Panel - Four Tabs

Unless stated otherwise, Click Dot above Tab Name on Braille Display to choose it. Right Arrow to Body of Tab.
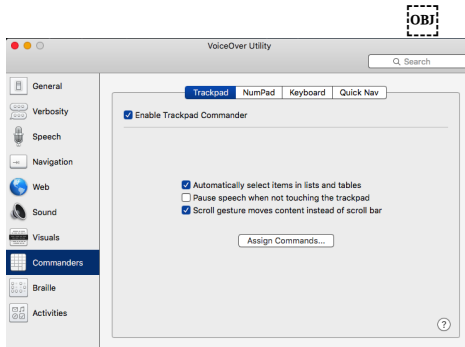


# Trackpad Tab

Unless stated otherwise, Click Dot above Tab Name on Braille Display to choose it. Right Arrow to Body of Tab.

Unless stated otherwise, Click Dot above Setting Choice on Braille Display to choose it.

The Trackpad Tab is not visible if the Trackpad is not connected.

Enable Trackpad Commander - Checkbox.

Automatically select items in lists and Tables - Checkbox.
Pause speech when not touching the trackpad - Checkbox.
Scroll gesture moves content instead of scroll bar - Checkbox.

Assign Commands - Button.

When Assign Commands Button is clicked - it opens:

Modifier key - Button. *

Table
(C6 to Enter (Interact) with Table.
Use arrow keys to navigate the rows.
C4 to Exit (Interact) with Table.)
Trackpad Gesture
Command
Click Button on display to choose the Menu Button.
Down arrow, and
Right arrow as needed to choose a new command.
Click Button on Display to Choose it.

Done - Button

* What the modifier key does - This one gives you five options to create trackpad commands. This allow the same gesture to mean up to five different things, depending on the modifier key clicked while doing the gesture.
For instance, Flick Right may be assigned to five different commands:
No Modifier Key and Flick Right = Move Right
Command Key and Flick Right = Item Chooser
Option Key and Flick Right = Read Current Word
Control Key and Flick Right = Find Next Button
Shift Key and Flick Right = Hide Visuals
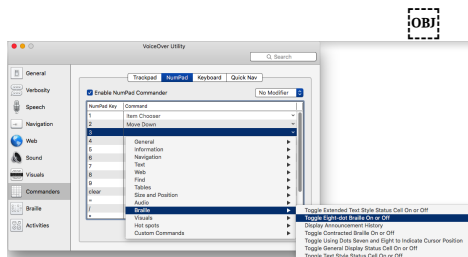
# NumPad Tab

Unless stated otherwise, Click Dot above Tab Name on Braille Display Right Arrow to Body of Tab.

Unless stated otherwise, Click Dot above Setting Choice on Braille Display.

Enable NumPad Commander - Checkbox.
Modifier - Pop Up Button - Click Button on Display to Choose. *

Table
(C6 to Enter (Interact) with Table.
Use arrow keys to navigate the rows.
C4 to Exit (Interact) with Table.)
NumPad Key - Text Field
Command - Menu Button

Click Button on display to choose the Menu Button.
Down arrow, and
Right arrow as needed to choose a new command.
Click Button on Display to Choose it.

    ** What the modifier key does - Gives you six options to create trackpad commands. This allows the same gesture to mean up to six different things, depending on the modifier key clicked while doing the gesture.
    For instance, the number 2 key may be assigned to six different commands:
    No Modifier Key and 2 = Move Down
    Command Key and 2 = Read Next Character
    Option Key and 2 = Move Item to Bottom Center Section

Control Key and 2 = Click Mouse
Shift Key and 2 = Read Row Description
NumPad Zero and 2 = Find Next Link
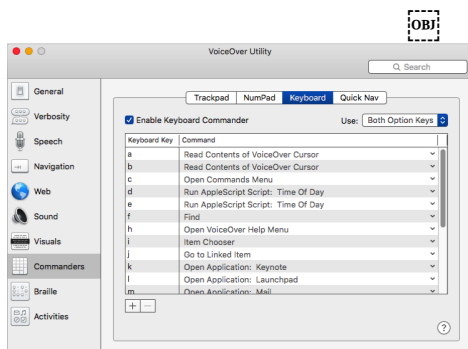


## Keyboard Tab

Unless stated otherwise, Click Dot above Tab Name on Braille Display to choose it. Right Arrow to Body of Tab.

Unless stated otherwise, Click Dot above Setting Choice on Braille Display to choose it.

Enable Keyboard Commander - Checkbox.
Modifier - Pop Up Button. *

Table
(C6 to Enter (Interact) with Table.
Use arrow keys to navigate the rows.
C4 to Exit (Interact) with Table.)
NumPad Key - Text Field.
Command - Menu Button.
Click Button on display to choose the Menu Button.
Down arrow, and
Right arrow as needed to choose a new command.
Click Button on Display to Choose it.
Plus - Add a Keyboard Command - Button.
Minutes - Delete a Keyboard Command - Button.

* What the modifier key does - This modifier key behaves differently. It allows you to choose one, or both Options Keys, and

give them a command for each letter on the keyboard.
    For instance, "A" key may be assigned:
    Right Option Key and "A" = Read Contents of VoiceOver Cursor.
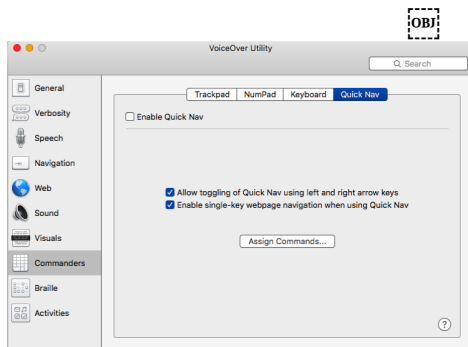
## Quick Nav Tab

Unless stated otherwise, Click Dot above Tab Name on Braille Display to choose it. Right Arrow to Body of Tab.

Unless stated otherwise, Click Dot above Setting Choice on Braille Display to choose it.

Enable Quick Nav - Checkbox.
Allow toggling of Quick Nav using left and right arrow keys - Checkbox.
Enable single-key webpage navigation when using Quick Nav - Checkbox.

Assign Commands - Button *
Choose Arrow or Single Key Keyboard Commands.

** Arrow Commands Allow for specific single, or two arrows to be tapped together to perform a command when Quick Nav is on.
** Single Key Commands allow for commands to added for any keyboard key when Quick Nav is on. This includes lowercase letters, capital letters, numbers, and punctuation.

Table
(C6 to Enter (Interact) with Table.
Use arrow keys to navigate the rows.
C4 to Exit (Interact) with Table.)
Arrows (or Keyboard) Command - Pop Up Button - Click on
Display to Choose.
Click Button on display to choose the Menu Button.
Down arrow, and
Right arrow as needed to choose a new command.
Click Button on Display to Choose it.
Plus - Button.
Minus - Button.

Done - Button.

# Braille Panel - Two Tabs
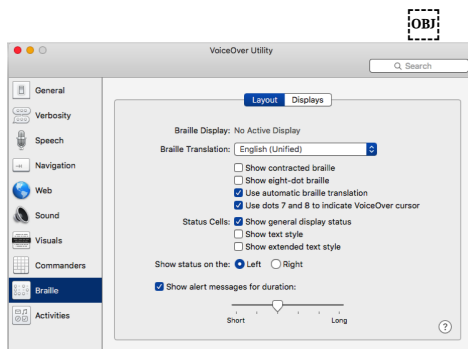


# Layout Tab

The checkboxes on this tab can allow you to read .brl files on the Mac. These are the braille ready files that can be turned into embossed (printed) braille pages. If you want to read .brl files on your braille display, only checkboxes 2 and 3 of the first four checkboxes should be checked.

Why would you want to read .brl files, when nearly any file any file can be read by VoiceOver?

Not all books are available in ebook format. For those that are available through the Talking Book Library, or other similar resource, the .brl file may be the only file they can share of the book.

Unless stated otherwise, Click Dot above Tab Name on Braille Display to choose it. Right Arrow to Body of Tab.
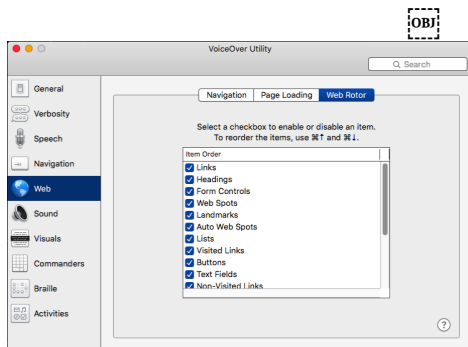Unless stated otherwise, Click Dot above Setting Choice on Braille Display to choose it.

Braille Display - Text Element.
Braille Translation - Pop Up Button.

Show contracted braille - Checkbox.
Show eight-dot braille - Checkbox.
Use automatic braille translation - Checkbox.
Use dots 7 and 8 to indicate VoiceOver cursor - Checkbox.

Status Cells
Show general display status - Checkbox.
Show text style - Checkbox.
Show extended text style - Checkbox.

Show status on the
Left - Radio Button 1 of 2.
Right - Radio Button 2 of 2.

Show alert messages for duration - Checkbox and Slider.
(C6 to Enter (Interact) with Slider.
Use arrow keys to navigate the Slider.
C4 to Exit (Interact) with Slider.)
Short - Slider Text Element.
Long - Slider Text Element.
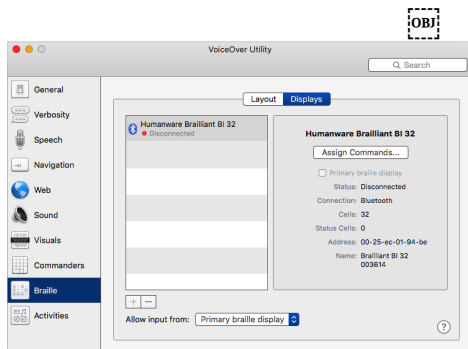
## Display Tab

Unless stated otherwise, Click Dot above Tab Name on Braille Display to choose it. Right Arrow to Body of Tab.

Unless stated otherwise, Click Dot above Setting Choice on Braille Display to choose it.

In this Tab - there are options to add commands to your braille display. However, not all will work, even if you add them. Select, copy, and paste do not work on the Mac, even if you add them here. Although, they are reported to work on the iPad and iPhone.

Table
(C6 to Enter (Interact) with Table.
Use arrow keys to navigate the rows.
C4 to Exit (Interact) with Table.)
List of Braille Displays.

Menu
Braille Display Name - Text Element.
Assign Commands - Button.

Primary Braille Display - Checkbox.

Status - Text Element.
Connection - Text Element.
Cells - Text Element.
Status Cells - Text Element.

Address - Text Element.
Name - Text Element.

Plus - Add a Braille Display - Button.
Minus - Delete a Braille Display - Button.

Allow input from - Pop Up Button.
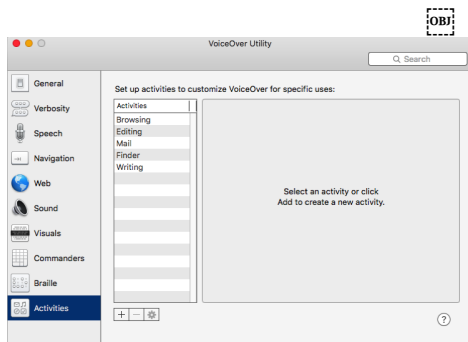
## Activities Panel

Unless stated otherwise, Click Dot above Setting Choice on Braille Display to choose it.

Set up activities to customize VoiceOver for specific uses - Text Element.

Why would you create Activities: For Instance - you might want a medium set of Braille Verbosity for reading email (Email), and a lower verbosity for reading a novel (iBooks), and a higher level, including punctuation for editing a document (Pages).

When you click on a Set Button - the screen opens up, which will include tabs if the original item does. Each Activity only changes those settings for the specific programs listed at the bottom of the screen.

Table
(C6 to Enter (Interact) with Table.
Use arrow keys to navigate the rows.
C4 to Exit (Interact) with Table.)

A list of activities you have previously adjusted VoiceOver settings for.
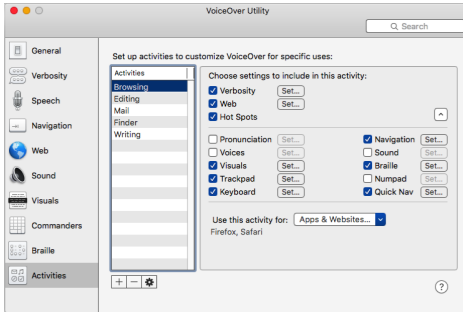
When you click on one, you get a menu with the following options:

Verbosity - Checkbox and Set - Button.
Web - Checkbox and Set - Button.
Hot Spots - Checkbox.

Arrow - Additional Settings to Include - Checkbox.

Pronunciation - Checkbox and Set - Button.
Voices - Checkbox and Set - Button.
Visuals - Checkbox and Set - Button.
Trackpad - Checkbox and Set - Button.
Keyboard - Checkbox and Set - Button.
Navigation - Checkbox and Set - Button.
Sound - Checkbox and Set - Button.
Braille - Checkbox and Set - Button.
NumPad - Checkbox and Set - Button.
Quick Nav - Checkbox and Set - Button.
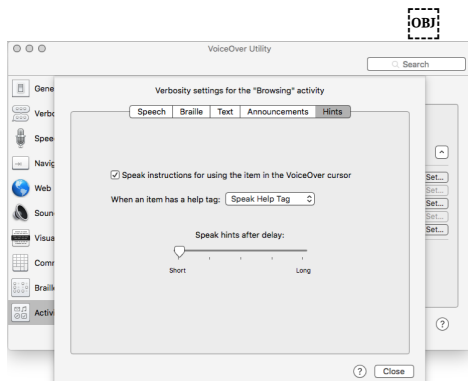
Use this activity for: Menu Button - Choose Button on Display. Down arrow through choices. Click Button on Display to choose one. Must re-enter for each choice.

Plus - Add an Activity - Button.
Minus - Delete an Activity - Button.
Gear - Menu - Button.

# App Store

## Locate

   The icon for the App Store is a blue circle with a pencil, paintbrush, and paper creating an "A" shape. This App Store is the actual store, and not the settings for App Store.

   C1 + C3 + C4 - Go to Menu.
   Down Arrow to App Store.
   Click Dot above word App Store on Braille Display to choose it.

   Or:

   C1 + C4 + C5 (Go to Dock).
   Right Arrow to App Store.
   Click Dot above word App Store on Braille Display to choose it.

   Or:

   C1 + C4 + C5 (Go to Dock).
   Right Arrow to LaunchPad.
   Click Dot above word Launchpad on Braille Display to choose it.
   Right Arrow to App Store.
   Click 3 + 6 + Space to choose App Store.

# Orientation to App Store

Top Toolbar
Back
Forward
Featured
Top Charts
Categories
Purchased
Updates
Search Field

HTML Content

# Navigation of App Store

C6 to Enter Toolbar.
Right Arrow to Choice.

# Featured - Radio Button

Click Button on Display to Choose it.
C4 to exit Toolbar.
Down Arrow to HTML content.
C6 to enter HTML Content.
Right arrow to choice.
Click Button on Display to Choose it.
C4 to Stop Interacting with HTML Content.

# Top Charts - Radio Button

C6 to Interact with Toolbar.
Right arrow to Top Charts.
Click Button on Display.
C4 to Stop Interacting with Toolbar.
Down Arrow to HTML Content.
C6 to Interact with HTML Content.
Right Arrow through to Choice.
C6 to Interact with item - which is in a Group.
Image.
Number - Text Element.
Item Name - a Link.
Type of app - Text Element.
Stars - rating image.
Install - Button
Actions for - Pop Up Button - Click Button on display to choose it.
C4 to Stop Interacting with group.
C4 to Stop Interacting with HTML Content Area.

# Categories - Radio Button

Right Arrow through content in HTML Area.
Image - Link.
Category Link.
Name Link.
Email Link.
App Link.

C6 to Interact with HTML Content.
Right Arrow through groups.
C6 to choose a group.
Image.
Link.
Name - Link.
Get - Button.
C4 to Stop Interacting with group.
C4 to Stop Interacting with HTML Content.

# Purchased Radio - Button

Click Button on Display to choose it.
Automatically opens Table.
Right Arrow through List.
Link - Image.
Item Name - Heading Level 2
Builder's Name - Text Element.
Date Downloaded - Text Element.
Invisible - Blank Space.
Install or Open Button.
C4 to Stop Interacting with Table.

# Updates - Radio Button

Automatically Opens in Heading Level 1.
Right Arrow through.
Update All - Button
PopUp Button
8 + Space to access list.
　　Install Now,
　　Try in an Hour,
　　Try Tonight, and
　　Remind Me Tomorrow.
Updates Installed in Last 30 Days - Text Element.
App Image.
App Name - Heading Level 2.

Designer's Name - Text Element.
Version Number - Text Element.
Installed Date - Text Element.
Fixes - Text Element.

# Search Bar

C6 to Interact with Toolbar.
Right Arrow to Search Bar.
Type app name in Search Bar.
The drop down menu does not appear to be accessible by Braille display. A keyboard is required. The keyboard down arrows scroll through options. They do not show up on Braille display. However, if you use the mouse, to scroll over the drop down menu, the words show up on the Braille display. In order to do this, the search bar is in the upper right hand corner of the app.

# Braille Display Basic Commands

An odd issue with the braille display means that you can go into system preferences and assign commands to keys, and sometimes they work, and sometimes they don't. For instance, you can assign select, copy, and paste commands. However, when you play keyboard help - no command will be given when you tap those buttons, even though they clearly show up on your list in system preferences. Some of the below commands have worked. They can also be reached with NumPad commands, or even Keyboard Commands.

## Pair the Braille Display

The braille display occasionally unpairs with VoiceOver. When that occurs, the braille display will not function with the computer. VoiceOver gives a popup to choose to pair the braille display with the computer. When this occurs - Tab twice on the regular keyboard, and hit enter.

## Change Windows or Programs Easily

You can use Control + NumPad 1 to open the Window Chooser. Or, / In the NumPad to open the Window Chooser to switch between windows in the same program.

## Item Chooser

The difference between Window Chooser and Item Chooser is subtle. Item Chooser opens a list of items available in the particular Window or Program that is open and focused on with VoiceOver. It is searchable. It can be found at 2 + 4 + Space.

## Activity Chooser

The Activity Chooser can be found at Control + NumPad 2.

# Application Chooser

Frequently, you will have multiple programs open, and perhaps even multiple windows in a single program. To switch between programs, you can use the Go to Dock Command (C1 + C4 + C5) and arrow to the program. However, not all programs are kept in the dock. The Application Chooser can be found at Control + NumPad 3.

# Capitalize Letters

On a regular keyboard, capitalizing letters is easy, by using the shift key. There is no shit key on the braille display, press button 6 before pressing the letter keys.

# Commands Menu

The Commands Menu can be found at Control + NumPad 4.

# Delete Items

Deleting items on a regular keyboard is easy. On the braille display, there is no delete key, so the key combination 7 + Space is used to delete items.

# Escape

Sometimes, you click the wrong set of keys and need to backtrack. There is no escape or undo key on the braille display. The keys C1 + C5 will close out unnecessary menus.

# Mission Control

Mission Control can be a great organization tool for the sighted, or semi sighted. For instance, you might have one entire dashboard for social media - with its own Dock. There might be a Document Panel with a Dock containing word and number processing Software. And even a third for marketing endeavors. These may not be necessary as a braille display user. However, the separation may be beneficial, if working with others. Some of these will have to be added to the VoiceOver Utility Menu under NumPad

# Mouse Clicks

For the sighted, mouse clicks are the major way to interact with the computer. Moving to a braille display after decades of relying on the mouse can be confusing. Here are a few mouse click styles on the display that sometimes work in specific instances:

Double Click - Control + NumPad 9
Left Click - Control + NumPad 5
Right Click - Control + NumPad 8
Short Cut Menu - Control + NumPad

# Perform Action

Perform Action is basically pressing the Enter Key.
It is reached by 1 + 5 + Space,
Router key, or
8 + Space.

# Short Cut Menu

Short cut menus are generally called the right click menu by sighted computer users. Anything you could previously reach with a right click - you can now reach with Control + NumPad /.

# Status Menu

The Status Menu is the upper right hand ToolBar on the Mac. It includes the extras like Display, Accessibility, Bluetooth, Sound, WiFi, Drives, Date, Time, SpotLight, and Notifications. Control + NumPad 6.

# Top of Window

Top of window can be reached at Control + NumPad 8. It generally goes to the Top ToolBar in a program.

# Calculator

## Locate

The Calculator is a rectangle with a top horizontal black line, and an orange vertical line on the right side.

C1 + C4 + C5 (Go to Dock).
Right Arrow to Calculator.
Click Dot above word Calculator on Braille Display to choose it.

Or:

C1 + C4 + C5 (Go to Dock).
Right Arrow to LaunchPad.
Click Dot above word Launchpad on Braille Display to choose it.
Right Arrow to Calculator.
Click 3 + 6 + Space to choose Calculator.

# Orientation to Calculator

Read Out Screen on the top row. - Text Field
Four Buttons in each of the following three rows.
AC (clears), +/-, %, /
7, 8, 9, X (Times)
1, 2, 3, +
0, ., =

# Navigating Calculator

C1 + C4 + C5 (Go to Dock).
Right Arrow to Calculator.
Click Dot above word Calculator on Braille Display to choose it.
It opens up on the Read Out Display.
Use Arrow Keys to choose Buttons for numbers, math signs, and clear Button.

To Return to the Read Out Screen - Use the Up Arrow.

To Close use the Up Arrow to the Close Button.
Click Dot above word Close on Braille Display to choose it.

# Calendar

## Locate

The Calendar program is a rectangle with the abbreviation for the month in tiny letters at the top, and the date in a larger white square at the bottom.

C1 + C4 + C5 (Go to Dock).
Right Arrow to Calendar.
Click Dot above word Calendar on Braille Display to choose it.

Or:

C1 + C4 + C5 (Go to Dock).
Right Arrow to LaunchPad.
Click Dot above word Launchpad on Braille Display to choose it.
Right Arrow to Calendar.
Click 3 + 6 + Space to choose Calendar.

# Orientation to the Calendar

## Toolbar requires Interaction

C6 to Enter (Interact) with Toolbar
Use arrow keys to navigate Toolbar
C4 to Exit (Interact) with Toolbar
Calendars - Button
Plus - Add Event Button
Day - Radio Button
Week - Radio Button
Month - Radio Button
Year - Radio Button

Column 1 - Calendar Sources Table (Requires Interaction)
List of Available Calendars - Rows of Cells
These Cells are Interactable and Contain a Checkbox and a text
   field)
Checkbox - turns the available Calendar on or off
Text Field - names the Calendar

Horizontal Splitter

Calendar of the current month. There is a Text Element for the
Month and Year. The Arrows beside the Month and Year do not
appear until after the calendar.

The Days of the Month are on Grid with Interactable Buttons

The section to the Right varies based on the choice in the Top
Toolbar
For Week, Month, and Year, there is only one Column

Year - Interactable Group
Months in the Year Group are Grids
Days Inside the Grids are Text Elements
For Some reason the Previous Month, Today, And Next Month
Buttons are not Accessible

Month - Calendar Area Group - Interactable

Previous Month - Button
Today - Button
Next Month - Button
Grid
Each Day is an Interactable List
Each Event is Interactable and opens a short adjustable menu

Week - Group
Previous Month - Button
Today - Button
Next Month - Button
Grid
Each Day is an Interactable List
Each Event is Interactable and opens a short List

For Current Day - There are two Columns
Day and Date - Text Field
Events List - Interactable
Event Title - Edit Text
Add Location - Text Field
Date - Button
Repeats - Button that later can be a Pop Up Button
Edit Attendees - Button
Add notes - Button
Previous Day - Button
Time - Text Element
Today - Button
Calendar Name - Button
Next Day - Button

# Navigating Calendar

A note about the Calendar Program. For some reason, the end time pop under is not VoiceOver accessible.

## Calendar Find

C6 to Interact with top Toolbar.
Right Arrow to Search Field.
Type in Desired Text.
8 + Space to Enter.
At this point, an extra column is created on the left beside the day's calendar.
C4 to Stop Interacting with the Toolbar.
Down Arrow several times to reach the Results Table.
C6 to Start Interacting with Results Table.
Down Arrow to Desired Result.
Click Dot above Desired Result on Braille Display to choose it.

## To Read Found Event

C4 to Stop Interacting with Results Table.
Arrow to Calendar Group.
C6 to Interact with Calendar Group.
Down Arrow to Read.

## To Add an Event

C6 to Interact with top Toolbar.
Click Dot above word Add on Braille Display to choose it.
Down Arrow to Text Edit Field.
Type in Event Name and Time.
8 + Space to Enter.
C4 to Stop Interacting with Toolbar.
Down Arrow to Calendar Area Group.
Right Arrow to Event Name.
Down Arrow to Make Adjustments to Date, Time, Attendees, and Notes.
Click Dot above word Date and Time on Braille Display to choose

it, which enters a Pop Over.

Use Up and Down Arrow to Adjust Date or Time.

Use Right and Left Arrow to go from Date to Time.

C4 to Stop Interacting with Date and Time.

Down Arrow to Calendar Type which is a Pop Up Button.

Down Arrow to Event Name which is Edit Text.

Down Arrow to Repeat (Daily, Weekly, Monthly, Yearly) which is a Pop Up Button.

Down Arrow to Travel Time which is a Pop Up Button.

Down Arrow to Alert which is a Pop Up Button.

Down Arrow to Edit Invitees - Button.

Down Arrow to Mail and Calendars which is a Text Field.

Down Arrow to Add URL Attachments Button.

C1 and C5 to Escape Pop Over.

# To Read an Event in Calendar

C6 To Start Interacting with Calendar Day.

Down Arrow Through Events.

Click Dot above Event Name on Braille Display to choose it.

Down Arrow.

Click Dot above word Date and Time on Braille Display to choose it, which enters a Pop Over.

Use Up and Down Arrow to Adjust Date or Time.

Use Right and Left Arrow to go from Date to Time.

C4 to Stop Interacting with Date and Time.

Down Arrow to Calendar Type which is a Pop Up Button.

Down Arrow to Event Name which is Edit Text.

Down Arrow to Repeat (Daily, Weekly, Monthly, Yearly) which is a Pop Up Button.

Down Arrow to Travel Time which is a Pop Up Button.

Down Arrow to Alert which is a Pop Up Button.

Down Arrow to Edit Invitees - Button.

Down Arrow to Mail and Calendars which is a Text Field.

Down Arrow to Add URL Attachments which is a Button.

C1 and C5 to Escape Pop Over.

# To Delete Event

C1 + C3 + C4 Goes to Menu.

Right Arrow to Edit (3 times).

Down Arrow to Delete (6 times).
Click Dot above Delete on Braille Display to choose it.

# Contacts

## Locate

Contacts is a small, brown rectangle, with a darker circle, and silhouette, and four colored tabs on the right hand side.

C1 + C4 + C5 (Go to Dock).
Right Arrow to Contacts.
Click Dot above word Contacts on Braille Display to choose it.

Or:

C1 + C4 + C5 (Go to Dock).
Right Arrow to LaunchPad.
Click Dot above word Launchpad on Braille Display to choose it.
Right Arrow to Contacts.
Click 3 + 6 + Space to choose Contacts.

# Orientation to Contacts

Group List Table on the Left that Lists All Email Groups you have created.

To the right is a Splitter.

To the right of the Splitter is a Contact List Table. This Lists all the contacts in the highlighted group in the Group List Table.

To the Right of the Contact List Table is a Second Splitter.

To the Right of the Second Splitter is the Contact Card that is highlighted in the Contact List Table.

The first item is a User Picture Button.

The next two items are Text Elements inside of a group. They are Name and Company.

Below that is the contact information in a Scroll Area.

## In the Edit or Create Card Screen

It starts in the text field inside of a group.

The Company is a Checkbox.

Pop Up Buttons are used for phone type, home page (website), and address type (home, work, other). These Pop Up Buttons open a menu that allow up and down arrows to be used. Click the dot to choose an option.

## Navigating Contacts

## Find A Contact

The Program opens in the Search bar.

To find a current Contact: Quickly type in name.

 (slow typing results in braille shortcuts appearing in search bar).

Down Arrow one time.

C6 - Start Interacting with Name List

Down Arrow until it reaches the correct name.

C4 - Stop Interacting with Name List

Right Arrow Twice.

 To Read the card - C6 to Start Interacting.

 Choose email Button to directly send an email.

# To Edit the Card

Down Arrow one time.
Right Arrow one time.
Click Dot above Edit on Braille Display to choose it.
Right Arrow through Name, Nickname, and Company.
Click C6 To Start Interacting with Main Card.
Click C6 to Start Interacting with Individual Field to edit it.
Type changes on main keyboard.
Click C4 to Stop Interacting with edit field.
Right Arrow through to any additional fields that need editing.
Click C6 to Start Interacting with Individual Field to edit it.
Click Button on Display to choose PopUp Button options. Arrow through choices.
Click C4 to Stop Interacting with Individual Field.
Click C4 to Stop Interacting with Main Card.
Click C4 to Stop Interacting with Full Card.
Right Arrow one time.
Click Dot above word Done on Braille Display to choose it.

# Delete A Contact

The Program opens in the Search bar.
To find a current Contact: Quickly type in name.
(slow typing results in braille shortcuts in search bar).
Down Arrow one time.
C6 - Start Interacting with Name List.
Down Arrow until it reaches the correct name.
C4 - Stop Interacting with Name List.

C1 + C3 + C4 Goes to Menu bar.
Press Down Button.
Press Right Button 3 Times to reach edit Button.
Press Down Button 5 times to reach Delete Card Button.
Click Dot above word Delete on Braille Display to choose it.
This opens a second menu.
Press Right Button one time to choose Delete Button.
Click Dot above word Delete on Braille Display to choose it.

# Create a New Contact

The Program opens in the Search bar.
Right Arrow 4 times.
Click Dot above word Add on Braille Display to.
Brings up a Pop Down Menu
Use Down Button to choose from Contact or Group.
Click Dot above word Contact or Group on Braille Display to
  choose it.
  It opens on First Name.
  Type First Name.
  Right Arrow one time.
  Type Last Name.
  Right Arrow One Time.
  Type Nickname.
  Right Arrow.
C6 to Start Interacting with Main Card.
Right Arrow to each edit field and type as needed.
Click Dot above Pop Up Button Name on Braille Display to
choose it.
This opens a menu. Down Arrow to Choice.
Click Dot above Choice on Braille Display.
C4 to Stop Interacting with Main Card.
C4 to Stop Interacting with Full Card.
Right Arrow 2 times.
Click Dot above word Done on Braille Display to choose it.

# To Close Contacts

Tab with Right Button to get to the word "close." A red circle in the
top left hand corner.
Click Dot above word Close on Braille Display to choose it.

# Dictionary

## Locate

C1 + C4 + C5 (Go to Dock).
Right Arrow to Dictionary.
Click Dot above word Dictionary on Braille Display to choose it.
Or:
C1 + C4 + C5 (Go to Dock).
Right Arrow to LaunchPad.
Click Dot above word Launchpad on Braille Display to choose it.
Right Arrow to Dictionary.
Click 3 + 6 + Space to choose Dictionary.

## Orientation to the Dictionary Program

Toolbar
Right Arrow
Left Arrow
Font Down Size
Font Up Size
Search bar
All - Radio Button
Dictionary - Radio Button
Thesaurus - Radio Button
Apple - Radio Button
Wikipedia - Radio Button
Table
Splitter
HTML Content Area

# Navigating Dictionary

Opens on Search Bar inside of a Toolbar.
Type in desired word.
Down Arrow.
Right Arrow through to choice of All, Dictionary, Thesaurus, Apple, Wikipedia (These Buttons are Radio Buttons).
Click Dot above word Choice on Braille Display to choose it.
Down Button Twice.
C6 To Start Interacting with HTML.
Right Arrow through Entries.
Panning (C2 and C5 work).
Down Arrow does not work.
C4 To Stop Interacting with HTML.
Up Arrow to close Button.
Click Dot above word Close on Braille Display to choose it.

There is also another Table with similar words under the word All.
Down Button to it.
C6 To Start Interacting with HTML.
Down arrow through the rows until word choice.
C4 To Stop Interacting with HTML.
Then Right Arrow twice to get to main HTML

For instance - The word read, the column will include:
read
read something into
read up on
and more.

If you want to choose a link within a definition - you must use the Perform Action 5 on NumPad, or other commands for trackpad or keyboard.

# Finder Spotlight (Search)

This section has three titles because the name has changed over the years. The search function on the Mac has been called Spotlight and Finder. It is not always accurate. It fact, it can be very challenging to use, even by sighted individuals. In several test cases, I have opened a specific file in a specific folder. Then, opened a Finder search, copy and paste the file name into the box, and it could not find it. Rely more on your ability to organize your files.

## Locate

C1 + C4 + C5 (Go to Dock).
Right Arrow to Finder.
Click Dot above word Finder on Braille Display to choose it.

## Orientation

## Top ToolBar

Back - Button
Forward - Button
Four Squares - Radio Button 1 of 4 - Icon View
Four Lines - Radio Button 2 of 4 - List View
Three Rectangles - Radio Button 3 of 4 - Column View
Square with Lines - Radio Button 4 of 4 - Cover Flow View
Six Squares and two Lines - Arrange - Menu Button - Click Button on display and Down arrow. Click Button on Display to choose Arrange options.
Gear - Action - Menu Button - Click Button on Display and Down Arrow. Click Button on display to choose options.
Square with Up Arrow - Share - Button
Search Bar - Text Field

Tab - Similar to Tabs in Internet browsers.
Plus Button - Add a Tab

# SideBar Table

C6 to Enter. Arrow to Choice. C4 to Exit.
Favorites
ICloud Drive
Air Drop
Applications
Downloads
Desktop
Pictures

Devices
Mac
Remote Disk
Thumb Drive

Vertical Splitter
Grid

_ of _ selected, __ Space available - Text Element

# Navigation

## Eject a Disk

Right Arrow to SideBar Table.
C6 to Enter SideBar Table.
Down Arrow to Devices.
Down Arrow to Device Name.
C4 to Exit.
Click Button on display to eject the disk drive - if listed on display.

## Find a Disk

Right Arrow to SideBar Table.
C6 to Enter SideBar Table.
Down Arrow to Devices.
Down Arrow to Device Name.
C4 to Exit.
Right Arrow to List View Table. This section may have another name if a different view option in Top ToolBar is enabled.
C6 to enter. May have to C6 twice.
Down arrow to folder choice.
Click C6 to Interact.
Click CDL to open a folder.
Click C4 to Stop Interacting.
Down Arrow to file.
Click Dot above File Name on Braille Display to choose it.
Repeat above six steps as needed to reach item.

# Find an Item

Right Arrow to Top ToolBar.
C6 to Enter ToolBar.
Right Arrow to Search Text Field.
Type Search Text.
C4 to Exit Top ToolBar.
Right Arrow To Radio Button - This Mac (or disk of choice).
Click Dot above Radio Button Name on Braille Display to choose
it.
Right Arrow to Scroll Area.
C6 to Enter Scroll Area.
C6 to Enter Again.
Down Arrow to File.
Click Dot above File Name on Braille Display to choose it.

# Narrow a Find Search

Right Arrow to Top ToolBar.
C6 to Enter ToolBar.
Right Arrow to Search Text Field.
Type Search Text.
C4 to Exit Top ToolBar.
Right Arrow To Radio Button - This Mac (or disk of choice).
Click Dot above Radio Button Name on Braille Display to choose
it.
Right Arrow to Search Criteria Button Button.
Click Dot above Search Criteria Button on Braille Display to
Right Arrow to Pop Up Button.
Click Dot above Search Criteria Button to choose Date, Kind,
Name, Type, or more.
Depending on your choice, you may go to another Pop up Button,
or a Text Field.
Minus Sign - Delete a Search Field.
Plus Sign - Add another Search Field.

# Google Chrome

## Locate

Google Chrome's icon looks like a red, yellow, green, and blue circle. It changes appearance with updates.

C1 + C4 + C5 (Go to Dock).
Right Arrow to Google Chrome.
Click Dot above word Google Chrome on Braille Display to choose it.

Or:

C1 + C4 + C5 (Go to Dock).
Right Arrow to LaunchPad.
Click Dot above word Launchpad on Braille Display to choose it.
Right Arrow to Google Chrome.
Click 3 + 6 + Space to choose Google Chrome.

Google Chrome has a very different set up than Safari or Firefox. In some ways, it is a very stripped down browser. There is no control over Buttons on the Toolbar. Nor, can you fully control the opening page. It refuses to open to a blank page. There is also no way to visually label the Buttons in the Toolbar. Or enlarge them to viewable size.

## Orientation to Google Chrome

### Tab Bar

Open Tab
Add a Tab
Picture of a person - Google Account Unnecessary

# Toolbar

Left Arrow
Right Arrow
Reload
Home
Address Bar
Star - Bookmark - Not VoiceOver Accessible
Three Lines - Customize and Control Google Chrome

## Extra Bar Visible Upon Opening

Apps
Bookmark Folders
This bar goes away once you open bookmarks

# Navigating Google Chrome

**Several settings can cause unpredictability in web page navigation. The following photos represent the settings that work with the directions given.**

OBJ
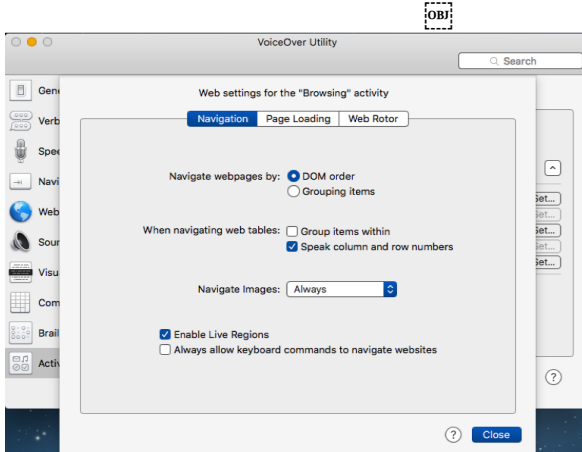
VoiceOver Utility Settings:
Activity
Browsing
Web Settings
Navigation

Marked Items:
DOM Order
Speak Column and rows
Navigate images: Always
Enable Live Regions

OBJ
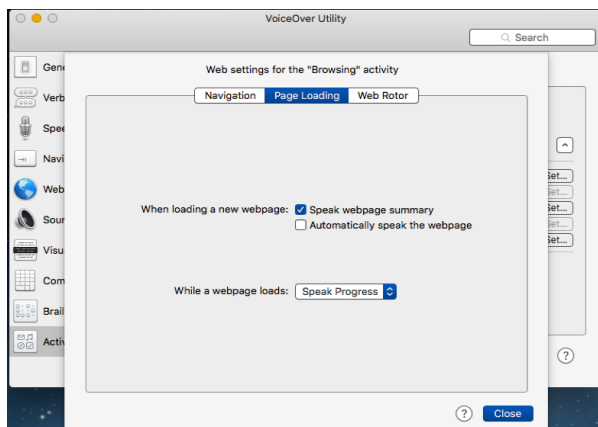
VoiceOver Utility Settings:
Activity
Browsing
Web Settings
Page Loading
Speak WebPage Summary
While a Webpage loads: Speak Progress

## To Open a Bookmark

C1 + C3 + C4 to go to Menu.
Right Arrow to Bookmarks.
Down Arrow to Chosen Bookmark.
If inside nested Folders Right Arrow and Down Arrow again.
8 + Space to open Chosen Website.
Opens up on Website.

## To Use a Search Tool

Be Sure Quick Nav is Off!
Follow Above steps to open preferred Search Engine.
Type Search terms.
Right Arrow to Submit Button.
Click Dot on Display above word Submit.
Right Arrow Through Links.
Click Dot on Display above Link Choice.

## To Create a Bookmark

Follow above steps to Open a Webpage.
C1 + C3 + C4 to Menu Bar.
Right arrow to Bookmarks.
Down Arrow to Add a Bookmark.
Click Button on Display to Choose it.
Opens a Dialog Box.
2 + 5 + Space to Open Bookmark Menu.
Down Arrow to Chosen Folder.
Click Button on Display to Choose it.
C4 to Stop Interacting with Dialog Box.
Down Arrow to Name of Page.
Type over name, or click to the left of name to add before it.
Right Arrow to Add Button.
Click Button on Display to Choose it.

## Click Links

Follow Above Directions to Open a Webpage.
Click Button on Display above chosen Link name.

## Start a Video

Follow Above Directions to Open a Webpage.
Click Button above Chosen video to play it.

## Verifying Page Identity

C6 to Interact with Toolbar.
Right Arrow to Web Address.
C6 to Interact with WebAddress.

## Forms

Follow Above directions to Open a Webpage.
C6 to Interact with Web Page.
C6 to Interact with Edit Text.
C4 to Stop Interacting with Edit Text.

# Facebook

Click on display to choose Facebook.
C6 to Interact with text field.
Type email address.
C4 to Stop Interacting.
Right arrow to Password.
C6 to Interact with text field.
Type Password.
C4 to Stop Interacting.
Push login on display to choose it.
Really need NumPad to scroll through with headings.
C4 to Stop Interacting with HTML Content - Webpage.

# Google Plus

C6 to Interact with HTML.
Right Arrow to Sign In.
Click Button on Display above Sign in.
Right Arrow to Email.
C6 to Interact with text field.
Type in email address.
C4 to Stop Interacting.
Right Arrow to Next.
Click Button on display.
C6 to Interact with Password.
C4 to Stop Interacting.
Right Arrow to login.
Click Button on Display.
Online version is a mess.
Need to use NumPad to scroll through headers.
Not sure how to get to Daily Screen.
C6 to Interact with a View Selector Group.
Right Arrow to more.
8 + Space to Select.
Down Arrow to Daily.
Click Dot on Display to choose.

# Google Email

Click Google Apps on Display.
Right Arrow through to Gmail.
Click Button on display.

To change accounts:
To go to email - click Google on Display.
Right Arrow.
C6 to Interact With Account information Group.
Right arrow through to Add account.
Click Button on Display.

# Twitter

Click Button on Display to open Twitter.
C6 to Interact with Edit Text
Type Username.
C4 to Stop Interacting with Edit Text.
Right Arrow to Password Field.
C6 to Start Interacting with Edit Text.
Type in Password.
C4 to Stop Interacting with Edit Text.
C4 to Stop Interacting with Group.
Right Arrow to Login.
Press Button on Display.
C6 to Enter HTML Content Area.
Move over to Keyboard/NumPad to navigate.

# Hootsuite

A recent update has broken accessibility in Google Chrome.
Click Button on Display to Open.
Left Arrow to Twitter.
Click Button on Display to Choose.
Right Arrow to Main inside of HTML Content.
C6 to Interact with Main.
Right Arrow to Authorize App.
Click Button on Display.
Right Arrow through.

# Goodreads

Click Button on Display to Open.
C6 to Interact with Webpage.
Right Arrow to Twitter Button.
8 + Space to Choose Button.
Opens in a Toolbar.
Move to Keyboard/ NumPad for Navigating.
0 + 5 for Headings.

# Smashwords

C6 to Interact with WebPage.
Numb Pad. 0 + 8 For Next Control.
Right Arrow to Text Field.
C6 to Interact with Text Field.
Type Username.
C4 to Stop Interacting with Text Field.
Right Arrow to Password.
C6 to Interact with Password.
Type Password.
C4 to Stop Interacting with Password.
Right Arrow to Login.
Press Button on Display to Login.
Right Arrow to Dashboard.

# Amazon

Click Button on Display too Open.
C6 to Interact with Text Field.
Type Email address.
C4 to Stop Interacting with Text Field.
Right Arrow to Password Text Field.
C6 to Interact with Text Field.
Type Password.
C4 to Stop Interacting with Text Field.
Right Arrow through page content.
Sales Information in chart is not accessible.

# Draft2Digital

Choose Button on Display.
C6 to Interact with Webpage.
Right Arrow to Login Link.
Click Link on Display to choose it.
NumPad ) + 8 to Login email.
C6 to Interact with Edit Text.
Type email.
C4 to Stop Interacting with edit Text.
Right Arrow to Password.
C6 to Interact with Text Field.
Type password.
C4 to Stop Interacting.
Right Arrow to Submit Button.
Choose Button on Display.

# Mail Chimp

C6 to Start Interacting with HTML area.
Right Arrow to Email Address.
C6 to Interact with Edit Text.
Type email.
C4 to Stop Interacting with edit Text.
Right Arrow to Password.
C6 to Interact with Text Field.
Type password.
C4 to Stop Interacting.
Right Arrow to Submit Button.
Choose Log In Button on Display.
Requires NumPad 0 + 5 to Move by Header to get to main
Webpage.
Requires all four Arrow keys and clicking Buttons on the Display
to Choose Items.
C6 to Start Interact with Edit Fields.
C4 to Stop Interacting with Edit Fields.
Choosing a Template works.
Requires Keyboard to copy and paste Email message.
Doable. Difficult.

# iBooks

## Locate

The iBooks app is an orange circle with a white open book in it.

C1 + C4 + C5 (Go to Dock).
Right Arrow to iBooks.
Click Dot above word iBooks on Braille Display to choose it.

Or:

C1 + C4 + C5 (Go to Dock).
Right Arrow to LaunchPad.
Click Dot above word Launchpad on Braille Display to choose it.
Right Arrow to iBooks.
Click 3 + 6 + Space to choose iBooks.

# Orientation to iBooks

## Top Row is a Toolbar.

   iBooks Store (Button)
All Books - Radio Button
Collections - Radio Button
Authors - Radio Button
Categories - Radio Button
List - Radio Button
Search - TextField
Down Arrow Button that Downloads (or Updates) Items from iCloud
The Scroll Area - contains current books

   After clicking on the iBooks Store the screen changes dramatically.

# Top Row is a Toolbar.

Library - Button
Left Arrow - Button
Right Arrow Button
Featured - Radio Button
Top Charts - Radio Button
Ny Times - Radio Button
Categories - Radio Button
Top Authors - Radio Button
Search - TextField)
Down Arrow Button that Downloads (or Updates) Items from iCloud
Below that, you have an HTML Content Area.
In this area, you have Images, Headings, Links, and Pop Up Buttons to choose a book.

Collections Table on the left hand side. Generically contains: All, Books, PDFs, and a Plus sign Button to add your own collections. Useful for sorting.

Once you have opened a book, the Toolbar changes again.

The top line is not exactly a Toolbar, as there is no Interacting with it.
Close - Button
Minimize - Button
Resize - Button
Show iBooks - Button
Library - Button
Table of Contents - Button
Notes - Button
Title - Button
Font Sizer - Button
Search - Button
Bookmark - Button
Next you enter the Scroll Area.
Right arrowing through will go through the
Previous Page - Button
Current Page - Button
Next Page - Button

Page Number - Text Element
Pages left in the Chapter - Button
Horizontal Scroll Bar.
Within the Scroll Area, Headings exist as well as readable text.

## Navigating iBooks Pane

## To read Books already owned

C1 + C4 + C5 (Go to Dock).
Right Arrow to LaunchPad.
Click Dot above word Launchpad on Braille Display to choose it.
Right Arrow to iBooks.
Click 3 + 6 + Space to choose iBooks.

Starts in the Scroll Area or the Toolbar.
C6 To Start Interacting with Toolbar.
It calls the Buttons Radio Buttons (All Books, Collections,
    Authors, Categories, List).
Click Dot above Radio Button on Braille Display to choose it.
C4 To Stop Interacting with Toolbar.
Down Arrow.

C6 To Start Interacting with Table (Column of Collections,
Authors or Categories on the left hand side).
Down Arrow.
Click Dot above Title or Author on Braille Display to choose it.
C4 To Stop Interacting with Table.
Right Arrow twice (Through a Splitter).

C6 To Start Interacting with Table.
Right Arrow to book choice.
Click Dot above Title to choose it.

Right Arrow Through PopUp to Sign in.

## Once the Book Opens

Panning - Buttons C2 and C5 work best.

Right Arrow through upper Toolbar.
C6 To Start Interacting with Scroll Area.

Use Panning C5 to read.
C4 To Stop Interacting with Scroll Area.

Left Arrow to Close Button.
Click Dot above word Close on Braille Display to choose it.

## To Find New Books

It tends to get stuck.

Use 6 + 8 + Space bar to open Application Chooser.
Scroll Down to iBooks Store.
Click Dot above word iBooks Store on Braille Display to choose it.
C6 to Interact with Toolbar.
Right Arrow to the Search Bar.
Type Name.
Right Arrow Out to the Main Window.
C6 to Interact with Main Window.
Right Tab through the Listings.
Click Dot above Listing name on Braille Display to choose it.
C6 to Interact with the next Main Window for the individual Work.
Right Tab through the Listing.
Images are clickable.

Click on "Get" Link on Braille Display to download a book.

# iTunes

## Locate

The iTunes app is a circle with a pair of musical notes. Red, white, purple, and blue color the edges of the circle and notes.

This manual will only cover using iTunes for backing up an iPhone or an iPad. The Music, Movies, and TV Shows sections will not be covered. They change too frequently. Use your knowledge of Buttons, Checkboxes, Pop Up Boxes, Radio Buttons, and Text Elements to Interact with these Tabs. ITunes store may be covered. It also changes frequently.

C1 + C4 + C5 (Go to Dock).
Right Arrow to iTunes.
Click Dot above word iTunes on Braille Display to choose it.

Or:

C1 + C4 + C5 (Go to Dock).
Right Arrow to LaunchPad.
Click Dot above word Launchpad on Braille Display to choose it.
Right Arrow to iTunes.
Click 3 + 6 + Space to choose iTunes.

## Orientation to iTunes

## Top Row

Close - Button
Minimize - Button
Arrows - Button
Slider - Button
Apple Logo Empty LCD, - Button
Search - Text Field Button

# Row 2

Music - Radio Button (1 of 3)
Movies - Radio Button (2 of 3)
TV Shows - Radio Button (2 of 3)
Pop Up Button
Pop Up Button
Connected Devices such as iPad and iPhone Radio Buttons
Below Music, Movies, and TV Shows is a Button for the Currently Connected Item.
Below that Button is a PlayList Table of rows.
For iPad and iPhone
Summary
Apps
Music
Movies
TV Shows
Books
Photos
Info

Specific items on the Device such as Music, Movies, TV Shows, Books, AudioBooks, and Tones.
I do not know why they are included three times in three different places.
With Summary selected in this PlayList Table - To the right is a Scroll Area that is filled with Check Boxes, Radio Buttons, Pop Up Buttons, and Text Fields.
Choose one either by clicking the Button on the display above the desired choice, or by 3 + 6 + Space.

# Navigating iTunes

C4 to Stop Interacting with a Grid.
Up Arrow.
Right Arrow to Devices.
Click Dot above word Device Name on Braille Display to choose it.
Down Arrow to Scroll Area.
C6 to Interact with Summary Scroll Area.
Right or Down Arrow to desired Setting.
Click Dot above Desired Setting on Braille Display to choose it.
When Finished, click C4 to Stop Interacting with Summary Scroll Area.
Up arrow a few times.
Left Arrow to close Button.
Click Dot above word Close on Braille Display to choose it.

# To work with iTunes Account

C1 + C3 + C4 to Go to Menu.
Right Arrow to Account.
Down Arrow to View My Account.
Click Dot above word View My Account Button on Braille Display to choose it.
Enter password.
Right Arrow Three Times.
Click Dot above word View Account on Braille Display to choose it.
Down Arrow to HTML Content Area.
C6 to Interact with HTML Content Area.
Right Arrow Through Settings.
Click Dot above Setting Choice on Braille Display to choose it.

# To reach the iTunes App Store on iTunes:

Click Left Arrow

# Orientation iTunes App Store

ToolBar 1
Close - Button
Minimize - Button
Arrows - Button
Slider - Button
Apple Logo Empty LCD, - Button
Search - Text Field Button - C6 and Down Arrow to interact with Search List.
Combo Box (Contains: Music, Movies, TV Shows, Apps, Audio Books, and other items added by the user in the Edit Menu at the bottom of the List.)
Square to choose connected items such as iPad and iPhone.
Activity PopOver Button - Where Downloads in Progress appear.

ToolBar 2
Back Button
Forward Button
Menu PopUp Button
Devices PopUp Button
My Apps - Radio Button - All Apps bought.
Updates - Radio Button - All Apps that need to be updated.
App Store - Radio Button

Left Column PlayList Table contains:
Library
Apps
iPhone Apps
iPad Apps
iPod Apps

Devices - Here you can down arrow and reach all the sections like on the backup screen. To make extra rows visible - Click Button on Display.
iPad
iPhone

Vertical Splitter
Grid

# Navigating iTunes App Store

## Searching My Apps

Right Arrow to My Apps.
Click Dot above word My Apps on Braille Display to choose it.
Right Arrow to PlayList Table.
C6 to Interact with PlayList Table.
Right or Down Arrow to desired Device.
Click Dot above Desired Setting on Braille Display to choose it.
When Finished, click C4 to Stop Interacting with PlayList Table.
Right Arrow through Vertical Splitter.
Right Arrow to Grid.
Click Dot above word Grid on Braille Display to choose it.
Right Arrow Through Apps.
C + 4 to Stop Interacting with Grid.
Left Arrow to close Button.
Click Dot above word Close on Braille Display to choose it.

# App Store

Right Arrow to App Store.
Click Dot above word App Store on Braille Display to choose it.
Right Arrow to HTML Content.
C6 on Braille Display to choose it.
Right Arrow To iPad or iPhone Radio Button.
Click Dot above word iPad or IPhone on Braille Display to choose it.
Right Arrow through content in HTML Area.
Image - Link.
Category Link.
Name Link.
Email Link.
Price - Text
App Link.

C6 to Interact with HTML Content.
Right Arrow through groups.
C6 to choose a group.
Image.
Link.
Name - Link.
Get - Button.
C4 to Stop Interacting with group.
C4 to Stop Interacting with HTML Content.
Left Arrow to close Button.
Click Dot above word Close on Braille Display to choose it.

Navigating through the App Store by Headings (4 + 5 +7 + Space) and Buttons (3 + 6 +7 + Space) is possible with the Braille Display. A section labelled Accessibility Apps is in the right hand column.

# Delete An App

Be sure the app is for a closed business, or you no longer want it at all, before deleting it permanently from this screen.
Follow above directions to choose an app.
Press 2 + 5 + Space to Open ShortCut Menu.
Down Arrow four times to Delete.
Click Dot above word Delete on Braille Display to choose it.
C + 4 to Stop Interacting with Grid.
Left Arrow to close Button.
Click Dot above word Close on Braille Display to choose it.

# Update Apps

Right Arrow to Update Apps.
Click Dot above word Apps on Braille Display to choose it.
Right Arrow to Grid.
C6 to Interact with Grid.
Click Dot above word Grid on Braille Display to choose it.
Right Arrow To Update All Button.
Click Dot above word Update All on Braille Display to choose it.
C + 4 to Stop Interacting with Grid.
Left Arrow to close Button.
Click Dot above word Close on Braille Display to choose it.

# To Return to the BackUp Screen

Right Arrow to Devices Button in Second Toolbar.
Click Dot above Device Name on Braille Display to choose it.

# Launchpad

## Locate

    Launchpad is a screen from which all programs can be launched. The icon for Launchpad looks like a rocket ship. It should be on the Dock.

## Navigating Launchpad

C1 + C4 + C5 (Go to Dock).
Right Arrow to LaunchPad (Launchpad is a Grid).
Click Dot above word Launchpad on Braille Display to choose it.
Right or Down Arrow to desired Program.
Click 3 + 6 + Space to choose desired Program.

# Libre Office

## Locate

The Libre Office Program looks like a white rectangle with black edges, and one corner sliced off.

C1 + C4 + C5 (Go to Dock).
Right Arrow to Libre Office.
Click Dot above word Libre Office on Braille Display to choose it.

Or:

C1 + C4 + C5 (Go to Dock).
Right Arrow to LaunchPad.
Click Dot above word Launchpad on Braille Display to choose it.
Right Arrow to Libre Office.
Click 3 + 6 + Space to choose Libre Office.

## Orientation to Libre Office

Libre Office is a free writing, spreadsheet, and more program set that is intended to resemble Microsoft Word. The primary file type is .odt. Files can easily be saved as .doc, .docx, .htlm, .rtf, or . txt. They can be exported to pdf format.

However, with a braille display, there do seem to be some limitations - namely, spell check, format, select, creating Links, and bookmarking are inaccessible without an external Keyboard, NumPad, or Trackpad.

Libre Office is composed of multiple customizable, and hideable, Toolbars and a Scroll area.

# Top Toolbar

Glasses - an alternative addon search, find, and replace function
Select All - Button
New - Menu Button
Open - Menu Button
Save - Button
Save As - Button
Default Style - Not Accessible - Freezes the Display
Font - Not Accessible
Font Size - Not Accessible - Freezes the Display
Undo - Menu Button
Redo - Menu Button
Arrow - Toolbar

Text Box - Document View in a Scroll Area
Top Ruler - Horizontal Ruler in a Scroll Area
Side Ruler - Vertical Ruler in a Scroll Area

# Search and Find Toolbar

X - Close Button
Find - Combo Box - Not Accessible - Freezes the Display
Down Arrow - Button
Up Arrow - Button
Find All - Button - Freezes the Display
Box - Checkbox
Match Case - Checkbox
Wand - Find Replace - Checkbox
Navigate by - Button
Down Arrow - Button
Up Arrow - Button

# Bottom Toolbar

Page of - Text Element
Words, Characters - Text Element
Default Style - Text Element
English - Text Element
Insert Mode - Text Element
Rectangle with a Vertical Line - Standard Selection - Text
Square with an X - Modified Document - Text Element
1 Rectangle - Single Column - Text Element
2 Rectangles - 2 Page View - Text Element
2 Rectangles - Book View - Text Element
Zoom Bar - Text Element
Percentage - Text Element

# Vertical Toolbar - Group of Properties - Not Accessible

3 Lines Plus Arrow
Wrench - Properties
T Over a Triangle - Styles and Formatting
2 Rectangles - Galley - Drawings
Circle With a Slash - Navigator

Opens up in a Toolbar.

Available options can be changed. In this case, the available options include:
Select All, New, Open, Save Save As, Formatting style drop down box, Font drop down box, Font size drop down box, Undo, Redo, Find, and Replace.

Multiple levels of Interaction (C6) and UnInteraction (C4).

It also appears, that select, copy, and paste are unavailable on the braille display. The select command goes to the Dock, and there is no option for Copy or Paste in the Braille Display Command Options. However, these options are available in the menu. The menu can be reached by C1 + C3 + C4.

# Navigating Libre Office

Down Arrow through Options:
Open File.
Recent Files.
Templates.
Writer Document.
Cal Spreadsheet.
Drawing.

## To Open a Current File

C1 + C4 + C5 (Go to Dock).
Right Arrow to LaunchPad.
Click Dot above word Launchpad on Braille Display to choose it.
Right Arrow to Libre Office.
2 + 5 + Space to choose the Menu.
Down Arrow through Menu Items.
Click Dot above Choice on Braille Display to choose it.
C6 to Interact with Table inside of a Scroll Area.
C6 to Interact with Table Inside of a Scroll Area.
Click Dot above Choice on Braille Display to choose it.
Repeat Previous two steps as needed.

## To Create a New File From a Current File

Right Arrow to Top Toolbar.
C6 to Interact with Top Toolbar.
Right Arrow to New - A Menu Button.
Click Dot above word New on Braille Display to choose it.

# To Save a Current Open File

Right Arrow to Top Toolbar.
C6 to Interact with Top Toolbar.
Right Arrow to Save - A Menu Button.
Click Dot above word New on Braille Display to choose it.

# To Adjust File Type in Save As Function

Right Arrow to File Type Pop Up Button.
2 + 5 + Space.
Down Arrow to Chosen File.
Click Dot above file type on Braille Display to choose it.
Down Arrow to Save Button.

# To Save a File with a new Name

Right Arrow to Top Toolbar.
C6 to Interact with Top Toolbar.
Right Arrow to Save As - A Menu Button.
Click Dot above word Save As on Braille Display to choose.
Type in New name deleting old name.
To Keep name and Change the Date in front of it:
Click Dot Before first word on Braille Display to choose it.
Right Arrow Until Folder Pop Up Button.
Down Arrow to Desired Folder.
Click Dot above Desired Folder on Braille Display to choose.
Right Arrow to Scroll Area.
C6 to Interact with Scroll Area.
Down Arrow to Chosen Folder.
C6 to Interact with Scroll Area.
Down Arrow To Chosen Folder.
Click Dot above Chosen Folder on Braille Display to choose.
Opens on a Table Inside a Scroll Area.
8 + Space to Enter and Save As.

# Open an Already Existing Document

Right Arrow to Top Toolbar.
C6 to Interact with Top Toolbar.
Right Arrow to Open - A Menu Button.
Click Dot above word Open on Braille Display to choose it.
Right Arrow Until Folder Pop Up Button.
Down Arrow to Desired Folder.
Click Dot above Desired Folder on Braille Display to choose.
Right Arrow to Scroll Area.
C6 to Interact with Scroll Area.
Down Arrow to Chosen Folder.
C6 to Interact with Scroll Area.
Down Arrow To Chosen Folder.
Click Dot above Chosen Folder on Braille Display to choose.
Opens on a Table Inside a Scroll Area.
8 + Space to Enter and Save As.

## Properties, Styles, and Navigator

This column is only partially accessible with the braille display. The problem is - if a section is not open, there is no way to open it with the sidebar buttons. They are not reachable. If a segment is opened, the buttons and boxes in that sections are mostly accessible.

The remaining functions: Spell Check, Select Text, Format, Add a Link, or Add a Bookmark do not work directly with the braille display. Either the Keyboard, NumPad, or Trackpad is required. And not all functions are available with VoiceOver.

Once text is selected, it can be copied and pasted, through the menu bar. However, formatting still does not work.

# Mail

## Locate

The Mail Program looks like a stamp with an eagle on it.

C1 + C4 + C5 (Go to Dock).
Right Arrow to Mail.
Click Dot above word Mail on Braille Display to choose it.

Or:

C1 + C4 + C5 (Go to Dock).
Right Arrow to LaunchPad.
Click Dot above word Launchpad on Braille Display to choose it.
Right Arrow to Mail.
Click 3 + 6 + Space to choose Mail.

## Orientation to Mail

Upon Opening Email Inbox

### Top Toolbar Includes - This is customizable

New Message - Button
Junk - Button
Reply - Button
Forward - Button
Add Sender - Button
Delete - Button
Smaller Font - Button
Bigger Font - Button
Get Mail - Button
Search - Text Field

# Second Toolbar - is a Favorites Group

Mailboxes - Button
Inbox - Checkbox with Menu
VIPS - Checkbox
Sent - Checkbox with Menu
Drafts - Checkbox with Menu

OBJ
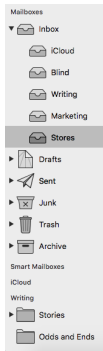


# Left Column - A Table that Lists all MailBoxes

Mail Boxes - Rows of Cells
Drafts - Rows of Cells
Outbox - Rows of Cells
Sent Junk - Rows of Cells
Trash - Rows of Cells
Archive - Rows of Cells
Smart Mailboxes - Rows of Cells

# Splitter One

## Column Two Is a Group

    Requires two sets of Interaction. The Date and Time Toggle is a Menu Button that requires one set of Interactions.

    The Second Interaction is with the Table of Emails in the selected email box.

## Splitter Two

## Column Three is the email selected in Column Two.

    May require multiple sets of Interaction.
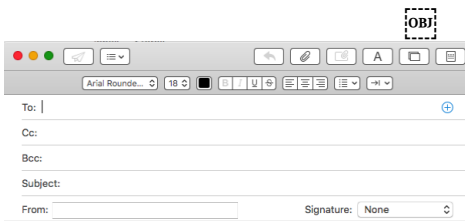
# A New Email

## Toolbar 1

Send Message - Button
Select Visible Header Fields - Menu Button
Reply to Sender - Button
Attach a Document - Button
Include Attachments from Original Email - Button
Show Format Bar - Button
Show or Hide Photo Browser - Button
Show or Hide the Stationary Pane - Button

## Toolbar 2 - No Interaction Necessary

Font Type - Pop Up Button
Font Size - PopUp Menu Button
Font Color - Color Well
A Group of Check Boxes (Requires Interaction)
Bold - Check Box
Italic - Check Box
Underline - Check Box
Strikethrough - Check Box
A Group of Buttons (Requires Interaction)
Left - Button
Center - Button
Right - Button
Bullets List - Menu Button
Indent and Outdent - Menu Button

To - Edit Text
Plus Sign - Button
CC (Carbon Copy - All Receivers see) - Edit Text
BCC (Blind Carbon Copy - only the receivers in To and CC see) -
Edit Text
Subject - Edit Text
From - Text Element
Signature - Pop Up Button

Body of the Email - Requires Interaction for some Commands -

Text

# Navigating Mail

## Read Mail

C6 To Interact with Messages Table.
8 + Space to choose the Message.
C4 to Stop Interacting with Messages Table.
C4 to Stop Interacting with Messages Table (Yes twice).
Right Arrow twice through Splitter.
C6 To Start Interacting up to 3 Times.
C1 to Move down through the Email.
C3 to Move Up through the Email.
C4 to Stop Interacting with Email 3 Times.

## Find other Mailboxes

C4 to Stop Interacting with Table.
Down Button to MailBoxes Table.
C6 to Interact with Mailboxes Table.
Down Button through Choices.
Stop on Mailbox Folder.
C4 to Stop Interacting with Mailboxes Table.
Down Arrow twice (Through Splitter) to Messages.
C6 to Interact with Messages.
C6 to Interact with Messages.
Down Button through Messages.

## To Reply to an Email

After completing reading the Email:
Right Arrow to Toolbar.
C6 to Interact with Toolbar.
Right Arrow to Reply.
Click Dot above word Reply on Braille Display to choose it.
Type in Response.
C4 to Stop Interacting with Edit Area.
Up Arrow.
C6 to Interact with Toolbar.
Click Dot above word Send on Braille Display to choose it.

# To Delete an Email

When in the Messages Pane:
7 + Space.
To Empty Trash:
C4 to Stop Interacting with Table.
Down Button to MailBoxes Table.
C6 to Interact with Mailboxes Table.
Down Button through Choices.
Stop on Trash Folder.
C4 to Stop Interacting with Mailboxes Table.
Down Arrow twice (Through Splitter) to Messages.
C6 to Interact with Messages.
C6 to Interact with Messages.
Down Button through Messages.
7 + Space to Delete Messages.

# To Save an Email

While in the Messages Table, on the desired email:
2 + 3 + 4 + Space to go to Menu Bar.
Down Arrow.
Right Arrow to File.
Down Arrow to "Save As."
Click Dot above word Save As on Braille Display to choose it.
Click Dot Above First Letter.
Type in Date and Time.
Down Arrow.
C6 to Start Interacting with Table.
Down Button to Desired Folder.
Click Dot above Desired Folder on Braille Display to choose.
Repeat Last three steps as needed to reach chosen nested folder.
8 + Space to Save Email.

# To Move an Email

Be on the Desired Email on the Messages Table.
C1 + C3 + C4 to go to Menu Bar.
Down Arrow.
Right Arrow 6 times to Messages.
Down Arrow 10 times to "Move To."
Right Arrow Once.
Down Arrow to Desired Location.
Click Dot above Desired Location on Braille Display to choose it.

# Create an Email

C6 to Interact with Toolbar.
Click Dot above word New Message on Braille Display to choose it.
Right Arrow to the Plus sign beyond the "To" field.
Click Dot above Add on Braille Display to choose it.
If field is empty Type in Name of Contact.
To clear the field - Down Arrow one time and then up arrow to highlight name. Typing over it will delete it.
Once the name you want is in the field, Down Arrow to List Table.
C6 to Interact with List Table.
Down Arrow to chosen Name.
3 + 6 + Space to choose Name.

# To Add an Attachment

C6 to Interact with Toolbar.
Click Dot above word Attach on Braille Display to choose it.
Right Arrow to the Plus sign beyond the labelled pop up Button.
Click Dot above Title on Braille Display to choose it.
Down Arrow to Chosen Folder
C6 to Start Interacting with Table.
Down Button to Desired Folder.
Click Dot above Desired Folder on Braille Display to choose it.
Repeat Last three steps as needed to reach chosen nested folder.
Click Dot above Title on Braille Display to choose it.

# If a Name has Multiple Email Addresses

C6 to Start Interacting with Name.
Use Down Arrow and Right Arrow to choose the correct Email Address.
Use 3 + 6 + Space the choose the correct Email Address.
Once chosen, this name appears in the "To" Field. Multiple names can be added this way, as well as to the CC and BCC fields.

Down Arrow to Subject field.
Type in a subject.

Down Arrow to Body of email.

There are two options:
Type the email and send without proofing.
Or proof it after typing.
To send without proofing - type the entire email.
Up arrow to Toolbar.
C6 to Interact with Toolbar.
Right Arrow to Send Message.
Click Dot above Send Message on Braille Display to choose it.
In this method - Up and Down arrow leave the body of the email.
Panning left or right does not work.

# To Proof Email

C6 to Start Interacting with Email Body.
1 + 2 + 3 + Space to go to Beginning of Email.
Down Arrow with Pan Buttons ( C2 and C5).
Click Dot above letter to the right of the Desired Change on Braille Display to choose it.
C4 to Stop Interacting with Email Body.
Up Arrow to Toolbar.
C6 to Interact with Toolbar.
Right Arrow to Send Message.
Click Dot above Send Message on Braille Display to choose it.

# Messages

## Locate

The Messages app looks like a blue thought bubble with a smaller white thought bubble in the lower right corner containing three blue dots.

C1 + C4 + C5 (Go to Dock).
Right Arrow to Messages.
Click Dot above word Messages on Braille Display to choose it.

Or:

C1 + C4 + C5 (Go to Dock).
Right Arrow to LaunchPad.
Click Dot above word Launchpad on Braille Display to choose it.
Right Arrow to Messages.
Click 3 + 6 + Space to choose Messages.

# Orientation to Messages

## Column 1

Search Bar - Text Field
New Message - Compose
List of Current Messages - Conversations Table
OffLine Image
Status Selection - Pop Up Button

## Vertical Splitter

## Column 2

Current Highlighted Message
To - Text Element
Name - Text Element
Details - Button
Body of the Message - HTML Content Area
SMS - Phone Number
Message Reply Box - Text Message Edit Text
Smiley Face - Emoji Picker
Microphone - Dictation

Navigating Messages

# Add A New Person

Right Arrow to Compose a New Message To.
Click Button on Display.
Type Person's Name.
If the first choice is incorrect, right arrow to Plus Button.

Type first letters of person's name.
Right Arrow to Contact Table.
C6 to Interact with Contact Table.
Down Arrow to choose Contact Name.
Click Button on Display to choose Name.
Down Arrow to Table.
C6 to Interact with Table.
Down Arrow to Correct Phone Number.
1 + 3 + 5 + 6 + 7 + 8 + Space to Click Mouse.

## To Choose a Conversation

Right Arrow to Conversations Table.
C6 to Interact with Conversations Table.
Down Arrow to Person.
Current Message pops up automatically.
C4 to Stop Interacting with Conversations Table.
Right Arrow to Messages Table - HTML Content.
C6 to Interact with Messages Table.
Right Arrow Through Messages.

## To Type a Text

Right Arrow to Text Box.
Type Text.
8 + Space to Send.

# Microsoft Word

## Locate

The Microsoft Word for Mac Program looks like a large blue "W."

C1 + C4 + C5 (Go to Dock).
Right Arrow to Microsoft Word.
Click Dot above word Microsoft Word on Braille Display to choose it.

Or:
C1 + C4 + C5 (Go to Dock).
Right Arrow to LaunchPad.
Click Dot above word Launchpad on Braille Display to choose it.
Right Arrow to Microsoft Word.
Click 3 + 6 + Space to choose Microsoft Word.

Important Note: Word 2010 and before are not VoiceOver Accessible. You can reach all Buttons and Toolbars. However, you cannot reach the text area.

Multiple levels of Interaction (C6) and UnInteraction (C4).

It also appears, that select, copy, and paste are unavailable on the braille display. The select command goes to the Dock, and there is no option for Copy or Paste in the Braille Display Command Options. However, these options are available in the menu. The menu can be reached by C1 + C3 + C4.

# Orientation to Microsoft Word

Microsoft Word is a writing, spreadsheet, and more program set. The primary file type is .doc, or, .docx, they can also be saved as .rtf, or . txt. They can be exported to pdf format.

However, when using a braille display, there do seem to be some limitations - namely, spell check, format, select, creating Links, and bookmarking are inaccessible without an external Keyboard, NumPad, or Trackpad.

Microsoft Word is composed of multiple customizable, and hideable Toolbars and a scroll area.

## Top Toolbar

File - Button
Save - Button
Undo - Menu Button
Redo - Button
Print - Button
New Document - Button
Save As - Button
Spelling & Grammar - Button
Customize Quick Access Toolbar - Menu Button
Search - Text Field
Share This Document - Menu Button

C6 To Interact with Ribbon

# Ribbon Toolbar - Tab Group

Click Button on Display to Choose a Tab

Home - Tab
Insert - Tab
Design - Tab
Layout - Tab
References - Tab
Mailings - Tab
Review - Tab
View Line - Tab
Developer - Tab
Header & Footer - Tab
Help Improve Office - Menu Button
Up Arrow - Collapse Ribbon - Button

C6 to Interact with Ribbon


# Home Ribbon: Tab

## Clipboard - Group

Paste - Menu Button - Only Directly pastes the last text copied. However, 2 + 5 + Space will bring a drop Down menu which can be scrolled through. Click button on display to choose item. Use your knowledge of Buttons, Checkboxes, Pop Up Boxes, Radio Buttons, and Text Elements to Interact with these Options.
Cut - Button
Copy - Button
Copy Formatting - Checkbox

# Font - Group

Font Name - Change Font - Combo Box. Click Button on Display. Down Arrow.

Font Size - Combo Box - 3 + 6 + Space to Open the Pop Down List of Items.

C5 to where it says empty Combo Box.

If it does not say empty Combo Box - click Combo Box once, and then repeat 3 + 6 + Space until it says empty Combo Box, or cycles through the Combo Box Options.

A - Increase Font Size - Button

A - Shrink Font Size - Button

Aa - Change Case - Menu Button - Click Button on Display and Arrow through. Click Button on Display to Choose.

A - Clear All Formatting

B - Bold - Checkbox

I - Italic - Checkbox

U - Underline - Menu Button - However, 2 + 5 + Space will bring a drop Down menu which can be scrolled through. Click button on display to choose item. Use your knowledge of Buttons, Checkboxes, Pop Up Boxes, Radio Buttons, and Text Elements to Interact with these Options.

ABC - Strikethrough - Checkbox

X2 - Subscript - CheckBox

X2 - SuperScript - CheckBox

A - Font Effects - Menu Button - However, 2 + 5 + Space will bring a drop Down menu which can be scrolled through. Click button on display to choice item. Use your knowledge of Buttons, Checkboxes, Pop Up Boxes, Radio Buttons, and Text Elements to Interact with these Options.

Yellow ABC - Text Highlight Color - Menu Button - However, 2 + 5 + Space will bring a drop Down menu which can be scrolled through. Click button on display to choice item. Use your knowledge of Buttons, Checkboxes, Pop Up Boxes, Radio Buttons, and Text Elements to Interact with these Options.

Red A - Font Color - Menu Button - However, 2 + 5 + Space will bring a drop Down menu which can be scrolled through. Click button

on display to choice item. Use your knowledge of Buttons, Checkboxes, Pop Up Boxes, Radio Buttons, and Text Elements to Interact with these Options.

## Paragraph - Group

Bullet - Bulleted List - Menu Button - However, 2 + 5 + Space will bring a drop Down menu which can be scrolled through. Click button on display to choice item. Use your knowledge of Buttons, Checkboxes, Pop Up Boxes, Radio Buttons, and Text Elements to Interact with these Options.

Bullet - Numbered List - Menu Button - However, 2 + 5 + Space will bring a drop Down menu which can be scrolled through. Click button on display to choice item. Use your knowledge of Buttons, Checkboxes, Pop Up Boxes, Radio Buttons, and Text Elements to Interact with these Options.

Multi-Level List - Menu Button - Click Button on Display and Arrow through, Click Button on Display to Choose.
Left Arrow - Decrease Indent - Button
Right Arrow - Increase Indent - Button
A Z - Sort
Show Formatting Marks - Checkbox
Left - Align Text Left - Checkbox
Center - Center Text - Checkbox
Right - Align Text Right - Checkbox
Full - Justify Text - Checkbox
Up and Down Arrow - Line Spacing - Menu Button - Click Button on Display and Arrow through, Click Button on Display to Choose.

Shading - Menu Button - However, 2 + 5 + Space will bring a drop Down menu which can be scrolled through. Click button on display to choice item. Follow with knowledge of buttons radio buttons, lists, and text fields.

Borders - Menu Button - However, 2 + 5 + Space will bring a drop Down menu which can be scrolled through. Click button on display to choice item. Follow with knowledge of buttons radio buttons, lists, and text fields.

# Styles - Gallery

Styles Gallery has a down arrow button that lists all the styles in a grid format. It is not accessible. All styles can be reached it the following manner.

C6 to Interact with Gallery. Arrow Through. C4 to Exit.
Various Styles.
Style Pane - CheckBox - Puts the Style List on the right column.

C4 Twice to Stop interacting with Ribbon Group and Ribbon Titles.

# Insert Tab

## Pages Group

Pages - Menu Button - Click Button on Display and Arrow through, Click Button on Display to Choose between Cover Page, Blank Page, or Page Break. Press Escape to get out of it.

## Table Group

Table - Menu Button - Click Button on Display and Arrow through, Click Button on Display to Choose. With a Mouse, you can shade how many squares each direction. Not fully accessible.

## Illustrations Group

Pictures - Menu Button - Click Button on Display and Arrow through, Click Button on Display to Choose.
Shapes - Menu Button - Click Button on Display and Arrow through, Click Button on Display to Choose.
Smart Art - Menu Button - Click Button on Display and Arrow through, Click Button on Display to Choose.
Chart - Menu Button - Click Button on Display and Arrow through, Click Button on Display to Choose.
ScreenShot - Menu Button - Click Button on Display. C6 to In tract with Choices. Arrow through, Click Button on Display to Choose. Using this - opens a Picture Format Tab that is Otherwise Invisible.

## Picture Format Tab

Is not Braille Display Accessible. Cannot Arrow through, or go back and forth between picture and text.

# Adjust Group

Remove Background - Checkbox
Change picture - Button

Corrections - Menu Button
Color - Menu Button
Artistic Effects - Menu Button
Transparency - Menu Button
Compress Picture - Button
Reset - Menu Button

# Picture Styles Group

Quick Styles - Menu Button
Picture Border - Menu Button
Picture Effects - Menu Button

# Arrange Group

Position - Menu Button
Wrap Text - Menu Button
Bring Forward - Menu Button
Send Backward - Menu Button
Align - Menu Button
Group Objects - Menu Button
Rotate Objects - Menu Button

# Size Group

Crop - Menu Button
Height - Stepper
Width - Stepper
Lock Aspect Ratio - CheckBox

# Format Group

Format Pane - Button - Opens a right hand Column

# Insert Tab

## Add-Ins Group

Store - Button
Wikipedia - Button
My Add-ins -Menu Button - Click Button on Display and Arrow through, Click Button on Display to Choose.

## Media Group

Media - Menu Button - Click Button on Display and Arrow through, Click Button on Display to Choose.

## Links Group

Links - Menu Button (Hyperlink, Bookmark, Cross-reference) - Click Button on Display and Arrow through, Click Button on Display to Choose.

## Comments Group

Comments - Button

## Header & Footer Group

Header - Menu Button - Click Button on Display and Arrow through, Click Button on Display to Choose.
Footer - Menu Button - Click Button on Display and Arrow through, Click Button on Display to Choose.
Page Number - Menu Button - Click Button on Display and Arrow through, Click Button on Display to Choose.

# Text Group

   Text - Menu Button - Click Button on Display and Arrow through, Click Button on Display to Choose.

## Symbols Group

   Equation - Menu Button - Opens a Formerly Invisible Equation Tab

# Equation Tab

## Tools Group

   Equation - Menu Button
   Professional - Button
   Linear - Button
   Normal Text - Checkbox

## Symbols Gallery

C6 to Enter. C4 to Exit
   All Symbols are named Checkboxes. Basic math symbols are in this section as well.

# Structures Group

Fraction - Menu Button - Click Button on Display and Arrow through, Click Button on Display to Choose.

Script - Menu Button - Click Button on Display and Arrow through, Click Button on Display to Choose.

Radical - Menu Button - Click Button on Display and Arrow through, Click Button on Display to Choose.

Integral - Menu Button - Click Button on Display and Arrow through, Click Button on Display to Choose.

Larger Operator - Menu Button - Click Button on Display and Arrow through, Click Button on Display to Choose.

Bracket - Menu Button - Click Button on Display and Arrow through, Click Button on Display to Choose.

Function - Menu Button - Click Button on Display and Arrow through, Click Button on Display to Choose.

Accent - Menu Button - Click Button on Display and Arrow through, Click Button on Display to Choose.

Limit and Log - Menu Button - Click Button on Display and Arrow through, Click Button on Display to Choose.

Operator - Menu Button - Click Button on Display and Arrow through, Click Button on Display to Choose.

Matrix - Menu Button - Click Button on Display and Arrow through, Click Button on Display to Choose.

Advanced Symbol - Button (On Insert Tab)

C4 Twice to Stop interacting with Ribbon Group and Ribbon Titles.

# Design Tab

## Document Formatting Group

    Themes - Menu Button

    Gallery - C6 to Start Interacting. Arrow through. C4 to Stop Interacting.

    Colors - Menu Button

    Fonts - Menu Button

    Paragraph Spacing - Menu Button - Click Button on Display and Arrow through, Click Button on Display to Choose.

    Set as Default - Button

    Page Background Group

    Watermark - Button

    Page Color - Menu Button

    Page Borders - Button

    C4 Twice to Stop interacting with Ribbon Group and Ribbon Titles.

# Layout Tab

## Page Setup Group

Margins - Menu Button - Click Button on display - C6 to Interact with list. Down arrow through list. Click button on display to choose a margin.

Orientation - Menu Button - Click Button on Display. Down Arrow. Click button on display to choose Portrait or Landscape.

Size - Menu Button - Click Button on Display. Down Arrow. Click button on display to choose Page size.

Columns - Menu Button - Click Button on display - C6 to Interact with list. Down arrow through list. Click button on display to choose number of Columns.

Breaks - Menu Button - Click Button on Display. Down Arrow. Click button on display to choose Page or Section Break.

Line Numbers - Menu Button - Click Button on Display. Down Arrow. Click button on display to choose Line Number Style.

Hyphenation - Menu Button - Click Button on Display. Down Arrow. Click button on display to choose Hyphenation Style.

# Paragraph Group

Indent Spacing
Left - Stepper - Two Options: C6 to Interact with stepper. Use up or down arrows only. Numbers are visible on Braille Display. C4 to exit. Or, Option 2: Type a number in the edit field. Number is not Visible on the Braille Display.

Before - Stepper - Two Options: C6 to Interact with stepper. Use up or down arrows only. Numbers are visible on Braille Display. C4 to exit. Or, Option 2: Type a number in the edit field. Number is not Visible on the Braille Display.

Right - Stepper - Two Options: C6 to Interact with stepper. Use up or down arrows only. Numbers are visible on Braille Display. C4 to exit. Or, Option 2: Type a number in the edit field. Number is not Visible on the Braille Display.

After - Stepper - Two Options: C6 to Interact with stepper. Use up or down arrows only. Numbers are visible on Braille Display. C4 to exit. Or, Option 2: Type a number in the edit field. Number is not Visible on the Braille Display.

# Arrange Group

Position - Menu Button
Wrap Text - Menu Button
Bring Forward - Menu Button
Send Backward - Menu Button
Align - Menu Button - Click Button on Display. Down Arrow. Click button on display to choose Text Alignment.
Group - Menu Button
Rotate - Menu Button

C4 Twice to Stop interacting with Ribbon Group and Ribbon Titles.

# References Tab

## Table of Contents Group

Table of Contents - Menu Button - Click Button on display - C6 to Interact with list. Down arrow through list. Click button on display to choose style of Table of Contents.

Add Text - Menu Button - Click Button on Display. Down Arrow. Click button on display to choose Text Level for Table of Contents.

Update Table - Button

## Footnotes Group

Insert Footnote - Button
Insert Endnote - Button
Next Footnote - Menu Button
Show Notes - Button

## Citations & Bibliography Group

Insert Citation - Button
Citations - Checkbox
Citation Type - PopUp Button - Click Button on Display. Down Arrow. Click button on display to choose Citation type.

Bibliography - Menu Button - Click Button on Display. Down Arrow. Click button on display to choose Bibliography style.

## Captions Group

Insert Caption - Button
Insert Table of Figures - Button
Update Table - Button
Cross - Reference - Button

# Index Group

Mark Entry - Button
Insert Index - Button
Update Index - Button

# Table of Authorities Group

Mark Citation - Button
Insert Table of Authorities - Button
Update Table of Authorities - Button

C4 Twice to Stop interacting with Ribbon Group and Ribbon Titles.

# Mailings Tab

## Create Group

Envelopes - Button
Labels - Button

## Start Mail Merge Group

Start Mail Merge - Menu Button - Click Button on Display. Down Arrow. Click button on display to choose item.
Select Recipients - Menu Button - Click Button on Display. Down Arrow. Click button on display to choose recipients.
Edit Recipients List - Button
Filter Recipients - Button

## Write & Insert Fields Group

Insert Merge Field - Menu Button
Rules - Menu Button
Update Labels - Button

## Preview Results Group

Magnifying Glass - Checkbox

Preview Results
First Recipient - Button
Previous Recipient - Button
Record - Text Field
Next Recipient - Button
Last Recipient - Button

Find Recipient - Button

# Merge Range Group

Merge Range - PopUp Button
From Box - Text Field
To - Text
To Box - Text Field

Finish Group

Finish & Merge - Menu Button

C4 Twice to Stop interacting with Ribbon Group and Ribbon Titles.

# Review Tab

## Proofing Group

ABC - Spelling & Grammar Check - Button
Smart Lookup - Button
Thesaurus - Button
Word Count - Button

## Language Group

Language - Button

## Comments Group

New Comment - Button
Delete - Menu Button
Done - Button
Previous Comment - Button
Next Comment - Button

## Tracking Group

Track Changes - Checkbox
All Markup - Pop Up Button - Click Button on Display. Down
Arrow. Click button on display to choose Markup style.

Markup Options - Menu Button - Click Button on Display. Down
Arrow. Click button on display to choose Markup Options.

## Reviewing Group

Reviewing - CheckBox

## Changes Group

   Accept - Menu Button - Click Button on Display. Down Arrow. Click button on display to choose it.
   Reject - Click Button on Display. Down Arrow. Click button on display to choose it.
   Previous - Button
   Next - Button

## Compare Group

   Compare - Menu Button - Click Button on Display. Down Arrow. Click button on display to choose to compare or combine documents.

## Protect Group

   Block Authors - Menu Button
   Protect Document - Checkbox

## Permission Group

   Restrict Permission - Menu Button

   C4 Twice to Stop interacting with Ribbon Group and Ribbon Titles.

   View Tab

## Views Group

   Print Layout - CheckBox
   Web Layout - CheckBox
   Outline - CheckBox
   Draft - CheckBox

## Show Group

   Ruler - CheckBox

Guidelines - CheckBox
Navigation Pane - CheckBox

## Zoom Group

Zoom - Button
Zoom to 100% - Button
One Page - Button
Multiple Pages - Button
Page Width - Button

## Arrange Group

New Window - Button
Arrange All - Button
Split - Button

## Switch Group

Switch Windows - Menu Button - Click Button on Display. Down Arrow. Click button on display to choose Document.

## Macros Group

Macros - Menu Button - Click Button on Display. Down Arrow. Click Button on Display. Down arrow through choices. Click button on display to choose one. Right arrow through buttons and text fields, filling them in as needed,

C4 Twice to Stop interacting with Ribbon Group and Ribbon Titles.

# Developer Tab

## Code Group

Visual Basic - Button
Macros - Button
Record Macro - Button
Pause Recording - Button

## Add-ins Group

Add-ins - Button
Word Add-ins - Button

## Legacy Controls Group

Text Box - CheckBox
Check Box - CheckBox
Combo Box - CheckBox
Options - CheckBox
Insert Frame - CheckBox
Shading - CheckBox
Protect Form - CheckBox
C4 Twice to Stop interacting with Ribbon Group and Ribbon
Titles.

# Header and Footer Tab

## Header & Footer Group

Header - Menu Button - Click Button on display - C6 to Interact with list. Down arrow through list. Click button on display to choose number of Header Style.

Footer - Menu Button - Click Button on display - C6 to Interact with list. Down arrow through list. Click button on display to choose number of Footer Style.

Page Number - Menu Button - Click Button on Display. Down Arrow. Click button on display to choose Page Number Style.

## Insert Group

Date & Time - Button - Click Button on Display - Knowledge of tables and buttons required.
Field - Button
Picture From File - Button

## Navigation Group

Go to Header - Button
Go to Footer - Button
Previous - Button
Next - Button
Link to Previous - Button

## Options Group

Different First Page - Checkbox
Different Odd & Even Pages - CheckBox
Show Document Text - CheckBox

## Position Group

Header From Top - Stepper - C6 to interact, use up and down arrow. C4 to exit. Number is visible on display.

Header From Bottom - Stepper - C6 to interact, use up and down arrow. C4 to exit. Number is visible on display.

## Close Group

Close Header and Footer - Button

HTML Work Area
Horizontal Ruler
Vertical Splitter
Vertical Ruler

# Styles Task Pane -

C6 to Enter
Current Style - Menu Button - Click Button on Display. Down
Arrow. Click button on display to choose it.
Name of Style - Text Box
New Style - Button
Select All - Button
Apply A style
Scroll Area - C6 to Interact. Arrow through Menu Buttons.

Styles in Use - PopUp Button
Show Style Guides - CheckBox
Show Direct Formatting Guides - Checkbox
Horizontal Scroll Bar

# Bottom ToolBar

C6 to Enter

Page of - Button
Word Count - Button
Book - Proofing Errors - Button
Scroll - Macros
Square with Lines - Print Layout - Radio Button
Square with lines and a circle - Web Layout - Radio Button
Listed Lines - Outline - Radio Button
Lines - Draft - Radio Button
Minus - Zoom Out - Button
Zoom Slider
Plus -- Zoom in - Button
100 % - Button

# Navigating Through Microsoft Word

## To Create a New File by Template

C1 + C4 + C5 (Go to Dock).
Right Arrow to Microsoft Word.
Click Dot above word Microsoft Word on Braille Display to choose it.

Right Arrow to Radio Buttons.
Down Arrow to New.
Click Button on Display to Choose New.
Right Arrow to Grid.
C6 to Interact with Grid.
Arrow to Chosen Template.
C5 to Pan Through Templates.
8 + Space to open a New Document in the Template.

## To Open a Current File

C4 to Stop Interacting with Document.
Right Arrow to Top Toolbar.
C6 to Interact with Toolbar.
Right Arrow to File.
Click Dot above word File on Braille Display to choose it.
Right Arrow to Recent Radio Button.
Click Button on Display to Choose it.
Right Arrow to Table.
C6 to Interact with Table.
Down Arrow Through Table.
Click Dot on Braille Display to open Document.

## Or By Menu Bar:

C1 + C3 + C4 to reach Menu Bar
Right Arrow to File.
Down Arrow 4 times to Open Recent.
Right Arrow
Down Arrow through list.
Click Button on display to open.

## To Create a New File From a Current File

C4 to Stop Interacting with Document.
Right Arrow to Top Toolbar.
C6 to Interact with Top Toolbar.
Right Arrow to New - A Button.
Click Dot above word New on Braille Display to choose it.

## To Save a Current Open File

C4 to Stop Interacting with Document.
Right Arrow to Top Toolbar.
C6 to Interact with Top Toolbar.
Right Arrow to Save - A Menu Button.
Click Dot above word New on Braille Display to choose it.

# To Save a File with a New Name

C4 to Stop Interacting with Document.
Right Arrow to Top Toolbar.
C6 to Interact with Top Toolbar.
Right Arrow to Save As - A Menu Button.
Click Dot above word Save As on Braille Display to choose it.
Type in New name deleting old name.
To Keep name and Change the Date in front of it:
Click Dot Before first word on Braille Display to choose it.
Right Arrow Until Folder Pop Up Button.
2 + 5 + Space to open PopUp Menu.
Down Arrow to Desired Folder.
Click Dot above Desired Folder on Braille Display to choose it.
Right Arrow to Scroll Area.
C6 to Interact with Scroll Area.
Down Arrow to Chosen Folder.
C6 to Interact with Scroll Area.
Down Arrow To Chosen Folder.
Click Dot above Chosen Folder on Braille Display to choose it.
Opens on a Table Inside a Scroll Area.
8 + Space to Enter and Save As.

# To Adjust File Type in Save As Function

Right Arrow to Format Pop Up Button.
Click Dot above file type on Braille Display to choose it.
Down Arrow to Chosen File.
Click Dot above file type on Braille Display to choose it.
Down Arrow to Save Button.
Click Dot above Save on Braille Display to choose it.

# Add A Header

Right Arrow to Header.
C6 to Interact with Header.
Add or delete Text.
C4 to Exit Header.

Header and Footer Tab is available.
Use 2 + 4 + Space Item Chooser to reach Header and Footer Tab.
Scroll down Item Chooser to Header and Footer Tab.
8 + Space to Choose it.
C6 to Interact with Header and Footer Tab.
Header and Footer Tab has to be closed with its close button to work on Document.

# Document Layout Area

Right Arrow to Document Layout Area.
C6 to Interact with text.
C2 To Pan left through text.
C5 to Pan right through text.
It sometimes skips, and jumps to the header and footer. The spoken VoiceOver moves at a very different speed than the Braille.

The remaining functions: Add a Bookmark, Add a Link, Format, Select Text, or Spell Check do not work directly with the braille display. Either the Keyboard, NumPad, or Trackpad is required. The braille display can reach Add a Bookmark, Add a Link, Format, or Spell Check through the Menu Bar at C1 + C2 + C4.

Once text is selected, it can be copied and pasted, through the menu bar.

# Pages

## Locate

The Pages Program is mostly white rectangle with a top orange horizontal line, and a sideways orange line on the right side.

C1 + C4 + C5 (Go to Dock).
Right Arrow to Pages.
Click Dot above word Pages on Braille Display to choose it.

Or:

C1 + C4 + C5 (Go to Dock).
Right Arrow to LaunchPad.
Click Dot above word Launchpad on Braille Display to choose it.
Right Arrow to Pages.
Click 3 + 6 + Space to choose Pages.

Opens up in a Toolbar.

Available options can be changed. In this case, the available options include:
Select all, New, Open, Save, Save As, Formatting style drop down box, Font drop down box, Font Size drop down box, Undo, Redo, Find and Replace.

Multiple levels of Interaction (C6) and UnInteraction (C4)

## Orientation to Pages

Pages is a writing, spreadsheet, and more program that is intended to resemble Microsoft Word. The primary file type is .pages. Files can be exported as .doc, .pdf, .txt, or EPub.

However, with a braille display, there do seem to be some limitations - namely, Spell Check, Format, Select, creating Links, and Bookmarking are inaccessible without an external Keyboard, NumPad, or Trackpad. Most are reachable by menu at C1 + C3 + C4.

Pages is composed of multiple customizable, and hideable Toolbars and a scroll area.

## Top Toolbar

View - Menu Button
Zoom - Menu Button
Print - Button
Insert - Menu Button
Text - Button
Comment - Button
Share - Menu Button
Tips - Button
Copy Style - Menu Button
Paste Style - Button
Format - Button
Document - Button

Typing Area - Layout Area

## Format Toolbar

Text - Radio Button
Paragraph Styles - Button
Update - Button Inside a Group
Style - Radio Button Inside of a Group
Layout - Radio Button Inside of a Group
More - Radio Button Inside of a Group
Font - Text Element inside of a Scroll Area
Font Family (Name) - Pop Up Button
Font Typeface - Pop Up Button
Font Size - Edit Text
Font Size - Stepper
B - Font Style Group Bold Checkbox
I - Font Style Group Italic Checkbox
U - Font Style Group Underline Checkbox
Gear - Advanced Options Checkbox
Color - Preset Picker Button
Color Chooser Window - Button
Character Styles - Text Element
Font Style Presets - Button

Alignment - Text Element
Left - Horizontal Alignment Group - Checkbox
Center - Horizontal Alignment Group - Checkbox
Right - Horizontal Alignment Group - Checkbox
Justify - Horizontal Alignment Group - Checkbox
Decrease Indentation Level Group - Checkbox
Increase - Indention Level Group - Checkbox
Arrow up to Top Line - Vertical Alignment Group Top Checkbox
To Arrows meet at Center Line - Vertical Alignment Group Center Checkbox
Arrow Down to Bottom Line - Vertical Alignment Group Bottom Checkbox
Spacing - Disclosure Triangle Inside of a scroll area
Spacing - Pop Up Button
Line Spacing - Pop Up Button
1 - Text Filed for Line Spacing
Line Spacing Stepper
Before Paragraph - Edit Text
Before Paragraph Stepper
After Paragraph- Edit Text
After Paragraph - Stepper
Bullets Lists Disclosure Triangle Inside of a scroll area
List Style - Pop Up Button
Bullet or Numbering Style - Pop Up Button
Indent - Text Element
Indent - Edit Text
Bullet Indent Stepper
Space between Text and Left Margin - Edit Text
Text Indent - Stepper

# Layout Menu

Columns - Disclosure Triangle
Number of Columns - Text Field
Number of Columns - Stepper
Columns - Table
Equal Column Width - Checkbox
Indents - Disclosure Triangle
Indents -
First - Edit Text
First Indent - Stepper
Left Indent - Edit Text

Left Indent - Stepper
Right Indent - Indent Text
Right Indent - Stepper

Tabs - Disclosure Triangle inside a Scroll Area
Decimal Character - Edit Text
Default Spacing - Edit Text
Default Spacing - Stepper
Tab Stops - Empty Table
Plus - Add Tab Stop - Button
Minus - Delete Selected Tab Stop - Button
Borders Rules - Disclosure Triangle
Stroke Pattern - Paragraph Border - Pop Up Button
Fill Color - Button
Circle - Color Chooser Button
1 pt - Stroke Width Text Field
Stroke Width Stepper
Line Above the Paragraph - Radio Button
Line Above and Below Text - Radio Button
Line Below Text - Radio Button
Line Border - Radio Button
position with four rectangles
Offset Space between Paragraph and Border - Text Field
Offset Space - Stepper
Position - Text Element
Background Color - Text Element
Background Color - Fill Preset Button Picker

## More Toolbar

Pagination Breaks - Scroll Area
Keep Lines on same page - Checkbox
Keep with next paragraph - Checkbox
Start paragraph on new page - Checkbox
Prevent widow orphan lines - Checkbox
Hyphenation Ligatures - Text Element Inside a Scroll Area
Remove paragraph hyphenation - Checkbox
Remove ligatures - Checkbox

Following paragraph style - Pop Up Button

# Document Toolbar

Document and Section

## Document

Printer Paper Size - Scroll Area
Any printer - Pop Up Button
US Letter - Pop Up Button
Page Orientation
Portrait - Button
Landscape - Button
850 x 1100 - Text Element
Header - Checkbox
Footer - Footer
Header Top - Text Field
Header Top - Stepper
Footer Bottom - Text Field
Footer Bottom - Stepper
Top - Text Element
Bottom - Text Element
Document Body - Checkbox
Document Margins - Edit Text
Document Margins Top - Stepper
Document Margins Bottom - Edit Text
Document Margins Bottom - Stepper
Top - Text Element
Bottom - Text Element
Document Margins Left - Edit Text
Document Margins Left - Stepper
Document Margins Right - Edit Text
Document Margins Right - Stepper
Left - Text Element
Right - Text Element
Hyphenation - Checkbox
Ligatures - Checkbox

# Section

Headers Footers - Text Element
Hide on First Page of Section - Checkbox
Match previous section - Checkbox
Page Numbering - Text Element
Insert Page number - Menu Button
Create a New Section - Menu Button
Text Element

# Navigating Through Pages

## Choose a document

Down Arrow through Options.
C6 to Start Interacting With a Table.
Click Dot above document name to choose it.

## Choose a New Document

Click Dot above New Document to choose it.

## Save a Current Open File

Right Arrow to Top Toolbar.
C6 to Interact with Top Toolbar.
Right Arrow to Save - A Menu Button.
Click Dot above word New on Braille Display to choose it.
To Save a file with a new name - it is important to do so before making any changes to the previous document, or the previous document will be lost.

## Save a File with a New Name

Right Arrow to Top Toolbar.
C6 to Interact with Top Toolbar.
Right Arrow to Document Name.
C6 to Interact with Document Name.
Type in New name deleting old name.

## Keep Name and Change the Date in front of it

Click Dot Before first word on Braille Display to choose it.
Add Date.
Right Arrow Until Folder Pop Up Button.
2 + 5 + Space
Down Arrow to Chosen Folder.

## Add A Header

Right Arrow to Main Document Scroll Area.
C6 to Interact with Scroll Area.
C6 to Interact with Document view.
Up Arrow to Header.
Type Header.
Down Arrow to Body.

The remaining functions: Add a Bookmark, Add a Link, Format, Select Text, or Spell Check do not work directly with the braille display. Either the Keyboard, NumPad, or Trackpad is required. The braille display can reach Add a Bookmark, Add a Link, Format, or Spell Check through the Menu Bar at C1 + C2 + C4.

Once text is selected, it can be copied and pasted, through the menu bar.

# PDF

Some PDFs work better than others. Some PDF creators have not created accessible PDFs, either due to lack of knowledge, or, in the mistaken belief that an added layer of security is a better choice.

Some PDFs are created as forms to be filled in. These require click with mouse commands in order to be able to fill in the sections. If you can get it into the field, typing is possible. Although getting out of each field, and on to the next can be challenging.

## Locate

C1 + C4 + C5 (Go to Dock).
Right Arrow to Finder.
Click Dot above word Finder on Braille Display to choose it.
Right Arrow to Disk.
C6 to Start Interacting with Table.
Right Arrow to Desired Folder.
Click Dot above Desired Folder on Braille Display to choose it.
Repeat Last two steps as needed to reach chosen nested folder.
Click Dot above Desired PDF on Braille Display to choose it.

# Orientation

Title - Text Element
C6 to Interact with ToolBar.
View Menu - Menu Button - Click button on Display. Down Arrow through choices. Click Button on display to choose view choice.
Zoom Group - C6 to Enter Group. Arrow between Minus and Plus. Click Button on Display to Choose. C4 to Exit group.

Share - Menu Button - Click button on Display. Down Arrow through choices. Click Button on display to choose where to share.
Pencil - Highlight Group. C6 to Enter Group. Arrow between HighLight Checkbox and Highlight Menu Button. Click Button on Display to Choose Menu Button and Down Arrow through choices. Click Button on display to choose highlight choice. C4 to exit Highlight Menu button. C4 to exit Highlight Group

Square with arrow over it - Rotate Radio Button. Click Button on Display to rotate pdf.

Toolbox - markup CheckBox.

Search bar - Text Field.
C4 to Exit Toolbar.

Image Browser
List of Images
Vertical Splitter
PDF Content Group

# Navigation

Right Arrow to PDF Content Group.
C6 to Interact with text.
C2 To Pan left through text.
C5 to Pan right through text.
Arrow Keys sometimes work. The spoken VoiceOver moves at a very different speed than the Braille.

## If this is a Document to be filled in

Use NumPad Control + 5 to Mouse Click in.
Type as needed.
 Control + 5 to Mouse Click out.
Arrow to the next part.

## To Find a Specific Page

Right Arrow to Image Browser.
C6 to Enter Image Browser.
Arrow to desired page number. Page Numbers are only part visible.
C4 to Exit Image Browser.
Right Arrow twice.
C6 to Enter PDF Content Group and continue reading.

# Printer

## Locate

The Printer icon may vary depending on the device. It looks like a wide black line.

C1 + C4 + C5 (Go to Dock).
Right Arrow to Printer.
Click Dot above word Printer on Braille Display to choose it.

Or:

C1 + C4 + C5 (Go to Dock).
Right Arrow to LaunchPad.
Click Dot above word Launchpad on Braille Display to choose it.
Right Arrow to Printer.
Click 3 + 6 + Space to choose Printer.

## Orientation to the Printer Program

Printer Options will vary based on printer type, connection, and whether or not it is turned on.

A Toolbar with Buttons - Pause, Settings, Scanner.
A Table below shows current Printing Projects.

When the Settings is chosen - Three Utility Tabs appear - General, Supply Levels (Ink), and Utility.

# Navigating Through Printer

C1 + C4 + C5 (Go to Dock).
Right Arrow to LaunchPad.
Click Dot above word Launchpad on Braille Display to choose it.
Right Arrow to Printer.
Click 3 + 6 + Space to choose Printer.

C6 To Start Interacting with Toolbar.
Click Dot above word Settings on Braille Display to choose it.
Each Tab must be clicked on the Braille Display.

Right Arrow through Settings choices (General, Supply Levels,
and Utility).
Right Arrow through General. Name, Location, Device Name, and
Driver Version).

Right Arrow back up and choose Supply Levels.
C6 To Start Interacting with Scroll Area.
Right Arrow through choices.
Tri-Color - pan right to read percentage.
Black - pan right to read percentage.
Right Arrow on through a few more comments.
C4 To Stop Interacting with Scroll Area.

Right Arrow to Utility.
Down Arrow to Open Printer Utility.
Here a variety of options are available - only if the Printer is on.
Right Arrow to Cancel Button.
Click Dot above word Cancel on Braille Display to choose it.

Right Arrow to Close Button.
Click Dot above word Close on Braille Display to choose it.

# Safari

## Locate

The Safari Program looks like blue compass with a red and white needle triangle.

C1 + C4 + C5 (Go to Dock).
Right Arrow to Safari.
Click Dot above word Safari on Braille Display to choose it.

Or:

C1 + C4 + C5 (Go to Dock).
Right Arrow to LaunchPad.
Click Dot above word Launchpad on Braille Display to choose it.
Right Arrow to Safari.
Click 3 + 6 + Space to choose Safari.

# Orientation to Safari

## Customizable Toolbar

Left Arrow - Button in a Group
Right Arrow - Button in a Group
Box - Sidebar - Button
Search bar - Text Field
Square with an Up Arrow - Share - Button
Double Square - Show all Tabs - Button

Plus - Add a Tab - Button

Helpful Extensions -
ABP - AdBlock Plus - Button
P - Pinterest - Button
Circle - Reload - Button
Z - Zoom - Button
Clock with Lines - Recently Closed Tabs - Button

## Left Column has three sections.

Book - Bookmarks - Radio Button
List - Scroll Area
Search - Text Field
Bookmarks - Table
Edit - Button - Radio Button

Eyeglasses - Reading List

A - Shared Links - Radio Button
Subscriptions - Button

## Vertical Splitter

## HTML Content

# Navigating Safari

## To Open a Bookmark

Right Arrow to Bookmarks Group.
If the sidebar for Bookmarks is closed, there is a Button to open it
in the Toolbar.
C6 to Interact with Group.
Right Arrow to Scroll Area.
C6 to Interact with Scroll Area.
Right Arrow to Table.
C6 to Interact with Table.
Down Arrow to Chosen Bookmarks.
Click Dot on Display to open Bookmark.
Opens up on Website.

## To Verify Page Address

Right Arrow to Toolbar.
C6 to Interact with Toolbar.
Right Arrow to Email Address.
C6 to Interact with Address if needed.

## To Open a New Tab

Right Arrow to Plus, add a Tab Button.
Click Button on Display to Choose it.
Follow Directions to Open a new Bookmark.

## To Switch Tabs

C4 to Stop Interacting with HTML Webpage area.
Right Arrow to Chosen tab.
Click Button on Display to Choose that tab.

# To Use a Search Tool

Be Sure Quick Nav is Off!
Follow Above steps to open preferred Search Engine.
Type Search terms.
Right Arrow to Search Button.
Click Dot on Display above word Submit.
Right Arrow Through Links.
Click Dot on Display above Link Choice.

# To Create a Bookmark

Follow above steps to Open a Webpage.
C1 + C3 + C4 to Menu Bar.
Right arrow to Bookmarks.
Down Arrow to Add a Bookmark.
Click Button on Display to Choose it.
Opens a Dialog Box.
2 + 5 + Space to Open Bookmark Menu.
Down Arrow to Chosen Folder.
Click Button on Display to Choose it.
C4 to Stop Interacting with Dialog Box.
Down Arrow to Name of Page.
Type over name, or click to the left of name to add before it.
Right Arrow to Add Button.
Click Button on Display to Choose it.

# Click Links

Follow Above Directions to Open a Webpage.
Click Button on Display above chosen Link name.

# Start a Video

Follow Above Directions to Open a Webpage.
Click Button above Chosen video to play it.

## Verifying Page Identity

C6 to Interact with Toolbar.
Right Arrow to Web Address.
C6 to Interact with WebAddress.

## Forms

Follow Above directions to Open a Webpage.
C6 to Interact with Web Page.
C6 to Interact with Edit Text.
C4 to Stop Interacting with Edit Text.

## Facebook

Click on display to choose Facebook.
C6 to Interact with text field.
Type email.
C4 to Stop Interacting.
Right arrow to Password.
C6 to Interact with text field.
Type Password.
C4 to Stop Interacting.
Push login on display to choose it.
Really need NumPad to scroll through with Headings.

C4 to Stop Interacting with HTML Content - Webpage.

# Google Plus

C6 to Interact with HTML
Right Arrow to Sign In.
Click Button on Display above Sign in.
Right Arrow to Email.
C6 to Interact with text field.
Type in email.
C4 to Stop Interacting.
Right Arrow to Next.
Click Button on display.
C6 to Interact with Password.
C4 to Stop Interacting.
Right Arrow to login.
Click Button on Display.
Online version is a mess.
Need to use NumPad to scroll through headers.
Not sure how to get to Daily Screen.
C6 to Interact with a View Selector Group.
Right Arrow to more.
8 + Space to Select.
Down Arrow to Daily.
Click Dot on Display to choose.

# Google Email

Click Google Apps on Display.
Right Arrow through to Gmail.
Click Button on display.

# To Change Google Email Accounts

To go to email - click Google on Display.
Right Arrow.
C6 to Interact With Account information Group.
Right arrow through to Add account.
Click Button on Display.

# Twitter

Click Button on Display to open Twitter.
C6 to Interact with Edit Text
Type Username.
C4 to Stop Interacting with Edit Text.
Right Arrow to Password Field.
C6 to Start Interacting with Edit Text.
Type in Password.
C4 to Stop Interacting with Edit Text.
C4 to Stop Interacting with Group.
Right Arrow to Login.
Press Button on Display.
C6 to Enter HTML Content Area.
Move over to Keyboard/NumPad to navigate.

# Hootsuite

Click Button on Display to Open.
Left Arrow to Twitter.
Click Button on Display to Choose.
Right Arrow to Main inside of HTML Content.
C6 to Interact with Main.
Right Arrow to Authorize App.
Click Button on Display.
Right Arrow through.

# Goodreads

Click Button on Display to Open.
C6 to Interact with Webpage.
Right Arrow to Twitter Button.
8 + Space to Choose Button.
Opens in a Toolbar.
Move to Keyboard/ NumPad for Navigating.
0 + 5 for Headings.

# Smashwords

C6 to Interact with WebPage.
Numb Pad. 0 + 8 For Next Control.
Right Arrow to Text Field.
C6 to Interact with Text Field.
Type Username.
C4 to Stop Interacting with Text Field.
Right Arrow to Password.
C6 to Interact with Password.
Type Password.
C4 to Stop Interacting with Password.
Right Arrow to Login.
Press Button on Display to Login.
Right Arrow to Dashboard.

# Amazon

Click Button on Display too Open.
C6 to Interact with Text Field.
Type Email.
C4 to Stop Interacting with Text Field.
Right Arrow to Password Text Field.
C6 to Interact with Text Field.
Type Password.
C4 to Stop Interacting with Text Field.
Right Arrow through page content.
Sales Information in chart is not accessible.

# Draft2Digital

Choose Button on Display.
C6 to Interact with Webpage.
Right Arrow to Login Link.
Click Link on Display to choose it.
NumPad ) + 8 to Login email.
C6 to Interact with Edit Text.
Type email.
C4 to Stop Interacting with edit Text.
Right Arrow to Password.
C6 to Interact with Text Field.
Type password.
C4 to Stop Interacting.
Right Arrow to Submit Button.
Choose Button on Display.

# Mail Chimp

C6 to Start Interacting with HTML area.
Right Arrow to Email Address.
C6 to Interact with Edit Text.
Type email.
C4 to Stop Interacting with edit Text.
Right Arrow to Password.
C6 to Interact with Text Field.
Type password.
C4 to Stop Interacting.
Right Arrow to Submit Button.
Choose Log In Button on Display.
Requires NumPad 0 + 5 to Move by Header to get to main Webpage.
Requires all four Arrow keys and clicking Buttons on the Display to Choose Items.
C6 to Start Interact with Edit Fields.
C4 to Stop Interacting with Edit Fields.
Choosing a Template works.
Requires Keyboard to copy and paste Email message.
Doable. Difficult.

# Scrivener

## Locate

The Scrivener App looks like a grey "S" with black on one side, and light grey on the other.

C1 + C4 + C5 (Go to Dock).
Right Arrow to Scrivener.
Click Dot above word Scrivener on Braille Display to choose it.

Or:

C1 + C4 + C5 (Go to Dock).
Right Arrow to LaunchPad.
Click Dot above word Launchpad on Braille Display to choose it.
Right Arrow to Scrivener.
Click 3 + 6 + Space to choose Scrivener.

Available options can be changed. In this case, the available options include: Binder, Notes, Collections, Layouts, Add, Trash, Quick Ref, Speech, Compile, Statistics, Text Stats, Targets, Keywords, Spelling, Dictionary, Invisibles, Ruler, Find Synopsis, Format Bar, Inspector.

Multiple levels of Interaction (C6) and UnInteraction (C4).

There is no option for Copy or Paste in the Braille Display Command Options. However, these options are available in the menu. The menu can be reached by C1 + C3 + C4.

## Orientation to Scrivener

Scrivener is a great writing program. Files can easily be compiled as .doc, .docx, .odt, .rtf, .epub, .mobi, .fdx, .txt, pdf, and more formats.

Spell check, Format, Select, creating Links, and Bookmarking are only accessible by menu, or external Keyboard, NumPad, or Trackpad.

Scrivener is composed of multiple customizable, and hideable Toolbars and a scroll area.

# Top Toolbar

Binder - Button
Notes - Button
Collections - Button
Layouts - Button
Add - Button
Trash - Button
Quick Ref - Button
Speech - Button
Compile - Button
Statistics - Button
Text Stats - Button
Targets - Button
Keywords - Button
Spellings - Button
Dictionary - Button
Invisibles - Button
Find Synopsis - Button
Search - Text Field
Settings - Button
Inspector - Button

# Left Toolbar

Binder - Text Element
Table Row
Fiction / NonFiction - Text Element
Manuscript - Group Inside of a Table
Chapters -Text Field inside of a Table
Notes - Group Inside of a Table
Ideas - Group Inside of a Table
Research - Group Inside of a Table
Trash - Group Inside of a Table

# Bottom Left Toolbar

Plus - Add New Document - Button
Square Plus - Add New Folder - Button
Gear - Show Contextual Menu - Menu Button

# Vertical Splitter

## Text Top Toolbar

Paragraph Style - Formatting Presets - Menu Button
Font - Font Family - Pop Up Button
Font Typeface - Pop Up Button
Font Size - Pop Up Button
B - Checkbox
I - Checkbox
U - Checkbox
Left - Checkbox
Center - Checkbox
Right - Checkbox
Justify - Checkbox
Rectangle - Text Color - Button
Rectangle with ABC - Text Highlight Color - Button
Up and Down Arrow - FB Line Height Template
Line Spacing - Pop Up Button
Three Lines - List Style - Menu Button

## Text Middle Toolbar

Left Arrow - Show Last Document - Button
Right Arrow - Show Next Document - Button
Current Document Options - Menu Item
Title -
Up Arrow - Go to Previous Document in Binder- Button
Down Arrow - Go to Next Document in Binder - Button
Square - Toggle Split Editor - Checkbox

Text Box - Scroll Area
Top Ruler - Scroll Area

## Vertical Splitter

# Text Bottom Toolbar

Text Scale Percentage - Pop Up Button
Words Characters - Pop Up Button
Circle - Set the Document Targets - Button

# Part Time

Plus - Add a New Document - Button
Square with a Plus - Add a New Folder - Button
Gear - Show Contextual Menu - Menu Button
Square with an Arrow - Outliner Corkboard Open or Closed - Checkbox
O Items - Text Element
Radio Group
Four Touching Squares - Regular Corkboard Mode
Three Layered Squares - Freeform Corkboard Mode
Four Squares - In accessible

# Right Toolbar

Document Notes - Button
Document References - Button
Keywords - Button
Custom MetaData - Button
Snapshots - Button
Comments Footnotes - Button
Lock - Checkbox

## Next Section Varies based on Above Choice

# Document Notes

Down Arrow - Toggle Index Card Visible -Disclosure Triangle
Synopsis - Button
Card - Synopsis or Picture - Pop Up Button
Arrows -
Contents - Text Field
Text Area -Text Area
Down Arrow - Toggle Meta Data Pane Visible - Disclosure Triangle
General - Button
Label - Text Element
Chapter - Pop Up Button
Status - Text Element
To Do - Pop Up Button
Modified - Pop Up Button
Arrows -
Date and Time - Text Element
Include in Compile - Checkbox
Page Break Before - Checkbox
Compile As Is - Checkbox
Document Notes - Pop Up Button
Text Area - Text Area

# Document References

Down Arrow - Toggle Index Card Visible -Disclosure Triangle
Synopsis - Button
Card - Synopsis or Picture - Pop Up Button
Arrows -
Contents - Text Field
Text Area -Text Area
Down Arrow - Toggle Meta Data Pane Visible - Disclosure
Triangle
General - Button
Label - Text Element
Chapter - Pop Up Button
Status - Text Element
To Do - Pop Up Button
Modified - Pop Up Button
Arrows -
Date and Time - Text Element
Include in Compile - Checkbox
Page Break Before - Checkbox
Compile As Is - Checkbox
Document References -
Plus / Minus - Show References Options - Menu Button
Text Area - Empty Table
Description -
URL -

# Keywords

Down Arrow - Toggle Index Card Visible - Disclosure Triangle
Synopsis - Button
Card - Synopsis or Picture - Pop Up Button
Arrows -
Contents - Text Field
Text Area - Text Area
Down Arrow - Toggle Meta Data Pane Visible - Disclosure
Triangle
General - Button
Label - Text Element
Chapter - Pop Up Button
Status - Text Element
To Do - Pop Up Button
Modified - Pop Up Button
Arrows -
Date and Time - Text Element
Include in Compile - Checkbox
Page Break Before - Checkbox
Compile As Is - Checkbox
Keywords -
Plus - Add a Keyword - Button
Minus - Remove Keyword - Button
Gear - Button
Show Other Keyword options - Menu Button
Text Area -

# Custom MetaData

Down Arrow - Toggle Index Card Visible -Disclosure Triangle
Synopsis - Button
Card - Synopsis or Picture - Pop Up Button
Arrows -
Contents - Text Field
Text Area -Text Area
Down Arrow - Toggle Meta Data Pane Visible - Disclosure Triangle
General - Button
Label - Text Element
Chapter - Pop Up Button
Status - Text Element
To Do - Pop Up Button
Modified - Pop Up Button
Arrows -
Date and Time - Text Element
Include in Compile - Checkbox
Page Break Before - Checkbox
Compile As Is - Checkbox

Custom Meta-Data - Text Element
Gear - Show References Options - Menu Button
Group:
Define Meta Data Fields -

# Snapshots

Snapshots - Text Element
Plus -Take a Snapshot - Button
Minus - Delete Sleeted Snapshot - Button
Compare - Button
Compare Granularity - Menu Button
Roll Back - Button
Table
Date -
Title -

# Comments Footnotes

Comments Footnotes - Text Element
Plus - Add Comment - Button
Plus fn - Add Footnote - Button
Minus - Delete Selected Comments and Footnotes - Button
No Text Loaded - Group

# Lock

Lock - CheckBox

Navigating Through Scrivener

# To Open a Current File

C1 + C3 + C4 to reach Menu.
Right Arrow to File.
Down Arrow twice to Open.
Click Dot above word Open on Braille Display to choose it.
The Open Screen is composed of Tables, Pop Up Buttons, and Radio Buttons.
Right Arrow to Title Pop Up Button.
Click Dot above Title on Braille Display to choose it.
Down Arrow to Desired Folder.
Click Dot above Folder Name on Braille Display to choose it.
Right Arrow to Group.
C6 to Interact with Group.
Right Arrow to File.
Click Dot above File Name on Braille Display to choose it.
Repeat above Steps as needed.

There is another way to do this. The Project Template page opens when Scrivener opens. It can also be reached by the Creating a New Project Command.

C1 + C3 + C4 to reach Menu.
Right Arrow to File.
Down Arrow once to New Project.
Click Dot above New Project on Braille Display to choose it.
This Opens Project Templates Screen.
Right Arrow to Open Recent Menu Button.
Click Dot above Open Recent on Braille Display to choose it.
Down Arrow through choices.
Click Dot above Title on Braille Display to choose it.

Or,
Right Arrow one more time to Open an Existing File.
Click Dot above Open an Existing File on Braille Display to choose it.
This opens the same menu as the first set of directions on this segment.
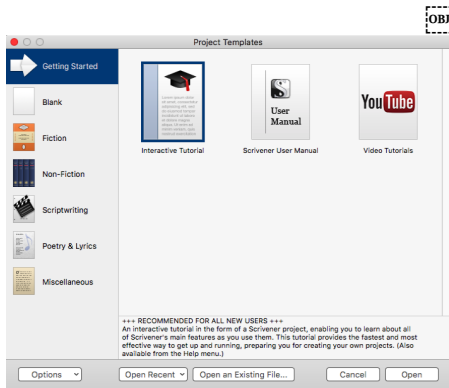
## To Create a New File From a Current File

C1 + C3 + C4 to reach Menu.
Right Arrow to File.
Down Arrow once to New Project.
Click Dot above word New Project on Braille Display to choose it.
This Opens Project Templates Screen.
C6 to Interact with Table.
Down Arrow to Choice.
C4 to Stop Interacting with Table.
Right Arrow to Right.
C6 to Interact with Group.
Right Arrow through Choices.
8 + Space to Choose Document Type.
This opens the Save As Menu. Directions Below.

# To Save As:

Type Name for the New File.
Right Arrow to Folder Pop Up Button.
Down Arrow to Choose Folder.
Click Dot above Folder name on Braille Display to choose it.
Right Arrow to Scroll Area.
C6 to Interact with Scroll Area.
C6 to Interact with Scroll Area.
Down Arrow to Chosen Folder.
Click Dot above Folder Name on Braille Display to choose it.
Repeat above steps as needed.

C4 twice to exit Scroll Area.
Right Arrow to Create Button.
Click Dot above Create on Braille Display to choose it.
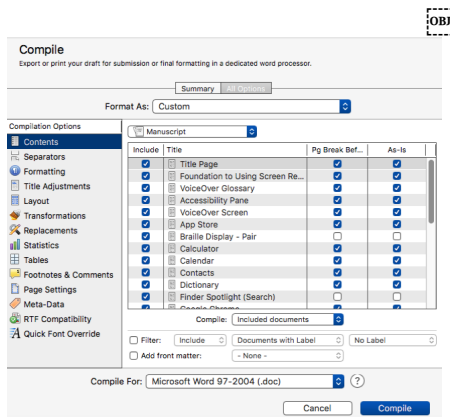
## To Save a Current Open File (Compile)

There are so many options to the compile screen that they cannot be covered in this manual. There are entire books on Scrivener and the compile process. The most important part to know as you begin using this program is how to reach the Compile for Pop Up Button. Some screens have help buttons. Use your knowledge of Buttons, Checkboxes, Pop Up Boxes, Radio Buttons, and Text Elements to Interact with the elements within the Compile screens.

Right Arrow to Top Toolbar.
C6 to Interact with Top Toolbar.
Right Arrow to Compile - A Menu Button.
Click Dot above word Compile on Braille Display to choose it.
Right Arrow to Compile For - Pop Up Button.
Click Dot above word Compile For on Braille Display to choose it.
Down Arrow to chosen Type.
Click Dot above Type on Braille Display to choose it.
Right Arrow to Compile.
Click Dot above word Compile on Braille Display to choose it.
Add current date to the Title, by clicking before the name.
Folder and Location can be changed if needed by following the directions in the Save As section above.
Right Arrow to Export Button.
Click Dot above word Export on Braille Display to choose it.
Exporting takes a while and freezes up Scrivener until it is done.

## Add a New Page

C6 to Interact with Binder Table.
Down arrow to manuscript.
2 + 5 + space.
Down arrow to add.
Right arrow.
Down arrow to new text.
Click Button on display.
Type in new page name.
8 + space to save new page name.

## To Go to Another Page

In Binder Table:
Down arrow to desired page.
C4 to Stop Interacting.
Right arrow to scroll area.
C6 to Interact with scroll area.
Down arrow through ruler.
C6 to Interact with edit text.

## To Move a Chapter

C1 + C3 + C4 to go to menu.
Right arrow to Documents.
Down arrow to move.
Right arrow to options.

## To Split a Document as Title

Within the Document Frame.
2 + 5 + space.
Down arrow to split selection as title.

# How to use Quick Ref

Right Arrow to Top Toolbar.
Right arrow to Quick Ref.
Click Dot above word Quick Ref on Braille Display to choose it.
Use 3 + 4 + 8 + space to open Window Chooser.
Or Use the NumPad / to open Window Chooser.
Down arrow to Window of choice.
Click Dot above Window Name on Braille Display to choose it.

# System Preferences

C1 + C3 + C4 - Go to Menu.
Down Arrow to System Preferences.
Click Dot above word System Preferences on Braille Display to choose it.
Press C4 to Stop Interacting with Toolbar.
Down Arrow.
Press C6 to Start Interacting with scroll area.
Right Arrow to desired Program.
Click Dot above Program Name on Braille Display to choose it.
Down Arrow to Desired Setting.

Interaction in System Preferences:
Unless stated otherwise, Click Dot above Setting Choice on Braille Display to choose it.
C6 to Enter (Interact) with Table.
Use arrow keys to navigate the Rows.
C4 to Exit (Interact) with Table.

There is a Help Button at the bottom right corner of every System Preferences page. When clicked, this Button takes you to a text element area that lists most of the terms on those pages. Some help pages are more clear than others. If you see issues, report what is unclear. Help pages are updated based on those reports.Orientation to System Preferences

# Toolbar

Close - Button
Minimize - Button
Left Arrow - Button
Right Arrow - Button
Show all - Button
Text Element
Search bar - Text Field.

Below it is the Scroll Area - depending on the Preference chosen may contain:
Tables
Check boxes
Pop Up Buttons
Text Fields
Radio Buttons
Choose by clicking the Button on the display above the desired choice, or by 3 + 6 + Space.

Below is a List of Items in System Preferences. This is an Alphabetized List, and includes all items, if your List is missing some, or they are out of order, there is a way to adjust that.

# List of Items in System Preferences

Accessibility
App Store
Bluetooth
Date and Time
Desk Top & Screen Saver
Dictation & Speech
Displays
Dock
Energy Saver
Extensions
Flash Player
General
iCloud
internet Accounts
Java
Keyboard
Language & Region
Mission Control
Mouse
Network
Notifications
Parental Controls
Printers & Scanners
Security & Privacy
Sharing
Sound
Spotlight
Startup Disk
Time Machine
Trackpad
Users & Groups

# Navigating System Preferences

## Accessibility

Display
Zoom
VoiceOver
Descriptions
Captions
Audio
Keyboard
Mouse Trackpad
Switch Control
Dictation

# App Store

App Store - Image
Description - Text Element
Automatically check for updates - Checkbox
Download newly available updates in the background. - - Checkbox
Install app updates - Checkbox
Install OSX updates. - Checkbox
Install system data and security updates - Checkbox
Automatically download apps purchased on other Macs - Checkbox
You are signed in as : - Text Element
Invisible - Progress Indicator

Last check date. - Text Element
Check now. - Button

Password Settings - Text Element
Invisible - Progress Indicator
Text Element
Purchases and In - app Purchases - Pop Up Button
Free Downloads - Pop Up Button

# Bluetooth

Bluetooth Symbol - Image
Bluetooth on or off - Text Element
Turn Bluetooth On of Off - Button
Now Discoverable as - Text Element
Computer Name - Text Element
Devices connected - Scroll Area
C6 to Enter Scroll Area
Down Arrow through.

Show Bluetooth in Menu Bar - Checkbox
Advanced Button - Button - Opens three Checkbox Options
Open Bluetooth Setup Assistant at startup if no keyboard is
    detected
Open Bluetooth Setup Assistant at startup if no mouse or
    trackpad is detected
Allow Bluetooth devices to wake computer
OK - Button

# Date and Time

Three Tabs. Click Dot above Tab Name on Braille Display to choose it. Right Arrow to Body of Tab.

## Date Time Tab

Part, or all, of this screen contain locked elements. How to click lock to make changes: Click Button on display above the word Click.

Set date time automatically - Checkbox. - if on, most other elements are dimmed and not reachable.
Date and Time - Combo Box
Date - Date Field
Time - Time Field
Calendar - Image - Not Accessible
Clock - Image - Not Accessible
Language and Region - Button

## Time Zone Tab

Part, or all, of this screen contain locked elements. How to click lock to make changes: Click Button on display above the word Click.

Select a time zone - Text Element
Set Time Zone Automatically - Checkbox
Map
Time Zone - Button
Closest City - Text Element

# Clock Tab

Part, or all, of this screen contain locked elements. How to click lock to make changes: Click Button on display above the word Click.

Show Date and Time in Menu Bar - Checkbox
Time Options - Text Element
Digital - Radio Button
 or Analog - Radio Button
Display the time with seconds - Checkbox
Flash the time separators. - Checkbox
Use a 24 hour clock. - Checkbox
Show Am/PM - Checkbox

Date Options - Text Element
Show Day of the Week. - Checkbox
Show Date. - Checkbox
Announce the Time. - Checkbox
Frequency - Pop up Button
Customize Voice. - Button

# Desk Top & Screen Saver

Two Tabs. Click Dot above Tab Name on Braille Display to choose it. Right Arrow to Body of Tab.

## Desktop Tab

Operating System (Yosemite) - Text Element
Table Group
C6 to enter Table Group
Down Arrow to choose one
C4 to Exit Table
Right Arrow to List
C6 to Enter List of photos
Arrow through. Click Button on Display to choose
C4 to Exit List
Plus - Add New Folder - Button
Minus - Delete Folder - Button
Change Picture - Checkbox
Change Picture Selection - Pop Up Button
Random Order - Checkbox

## Screen Saver Tab

Grid of Pictures
C6 to Enter Grid
Arrow through to choose a picture
C4 to Exit Grid
Image - Preview of Screen Saver
Source - Pop Up Button
Shuffle Slide Order - Checkbox
Start After: Pop Up Button
Show with Clock - Checkbox
Hot Corners - Button

# Displays

Two Tabs. Click Dot above Tab Name on Braille Display to choose it. Right Arrow to Body of Tab

## Available on Both Tabs

Air Play Display - Pop Up Button
Show Mirroring options in the menu bar when available - Checkbox

## Display Tab - Monitor Type

Monitor - Image
Resolution
Default for Display -Radio Button
Scaled - Radio Button
Rotation - Pop Up Button
Refresh Rate - Pop Up Button
Underscan - Slider
Off and More - Text Elements

## Color Tab - Monitor Profile

Table to choose Display ratio - C6 to Enter
Open Profile - Button
Delete Profile - Button
Calibrate - Button
Show Profiles for this display only - Checkbox

# Dock

Size - Slider
Size Increment Text Elements
Magnification - Checkbox and Slider
Min and Max - Text Elements

Position on Screen
Left - Radio Button
Bottom - Radio Button
Right - Radio Button

Minimize Windows using Scale Effect - Pop Up Button
Double Click a window's title bar - Checkbox
to: zoom, minimize - Pop up Button
Animate Opening applications - Checkbox
Automatically hide and show the dock - Checkbox
Show indicators for open applications - Checkbox

# Energy Saver

Computer Sleep - Text Element and a Slider
Time Increments - Text Elements

Display Sleep - Text Element and a Slider
Time Increments - Text Elements

Put Hard Disks to sleep when possible - Checkbox
Wake for network access. - Checkbox
Start up automatically after a power failure - Checkbox
Enable power nap - Checkbox

Restore defaults - Button

Schedule (for sleep and wake cycles) - Button

# Extensions

Table on Left Side - C6 to Enter
Right Panel Changes based on Item Chosen

All - Third Party Extensions - Row

Actions - Markup

Share Menu - Select Extensions for Sharing with Others

Today - Notification Center - Select Widgets for the Today View in the Notification Center

# General

Appearance for Buttons, Menus, and Windows - Pop Up Button
Use dark menu bar and Dock - Checkbox
Automatically hide and show the menu bar. - Checkbox
Highlight color - Pop Up Button
Sidebar Icon size - Pop Up Button
Show scroll bars - Text Element
 Automatically based on mouse or trackpad - Radio Button - 1 of 3
 When scrolling - Radio Button - 2 of 3
 Always - Radio Button - 3 of 3

Click in the Scroll bar - Text Element
 Jump to the next page - Radio Button 1 of 2
 Jump to the spot that's clicked - Radio Button - 2 of 2

Default web browser - Text Element
Browser Name - Pop Up Button

Ask to keep changes when closing documents - Check Box
Close windows when quitting an app. - Checkbox

Text Element

Recent items - Pop up Button
Allow Handoff between this Mac and your iCloud devices - Checkbox

Use LCD font smoothing when available - Checkbox

# iCloud

Initials - Button
Name - Text Element
Email - Text Element
Account Details - Button
Set Up Family - Button
Sign Out - Button

# Table

C6 to Enter
To reach the Options Buttons - C6 to Interact with the row. Right Arrow Across. Click Options on Braille Display to choose it. This one opens two tabs. Both tabs are chosen by clicking on the display. C4 to exit this row.

iCloud Drive and Options Button - Checkbox List of Apps that store documents and data in iCloud.
Photos and Options Button - Three Checkbox choices for Photo and iCloud storage.
Mail
Contacts
Calendars
Reminders
Safari
Notes
Keychain and Options Button
Back to my Mac
Find my Mac

Gb of Storage
Manage

# Internet Accounts

internet Accounts - Icon
Text Element
Table List of current emails
Plus - Button
Minus - Button

Right Hand Screen Changes based on choice in Table.

## Table of frequently used email services and programs

iCloud
Exchange
Google
Twitter
Facebook
LinkedIn
Yahoo
Aol
Vimeo
Flickr

Add Other Account

## Column 2

The majority of email accounts include the following Checkbox
options. A few may contain other options. iCloud contains many
more options and is covered in depth below the main group.

Logo - Image
Name - Text Element
Email - Text Element
Details - Button - goes to a Text Element

Mail
Contacts
Calendars
Reminders
Messages

Notes

# Table - C6 to Enter

# iCloud Screen

iCloud Drive - Checkbox
Options - Button. To reach the Button - C6 to Interact with the row. Right Arrow Across. Click Options on Braille Display to choose it. This one opens two tabs. Both tabs are chosen by clicking on the display. C4 to exit this row.
Photos - Checkbox
Options - Checkbox
Reminders - Checkbox
Safari - Checkbox
Keychain - Checkbox
Options
Back to my Mac - Checkbox
Find my Mac - Checkbox
C4 to exit the Table

Number Amount of iCloud Storage - Text Element

Numbers and amounts and types of storage used - Text Element
Amount of storage available - Text Element

Manage - Button - Buy more Storage - Button, and a List box of programs that are using storage. C6 to enter. Down arrow through List. Click on display to choose item. On right hand screen - a delete documents and data Button appears. Done Button appears below that.

# Java

Java Update page opens a separate Five Tab Panel. Click Dot above Tab Name on Braille Display to choose it. Right Arrow to Body of Tab. Many computers may not include it.

## General Tab

About - Button

Network Settings -Text Element inside of a Radio Button

Text Element explaining network settings
Network settings. - Button
Temporary internet Files - Text Element inside of a Radio Button
Text Element explaining temporary internet files

Settings - Button
View - Button inside of a radio Button
See the Security Tab. - Button

I can't get to the next set of tabs.

## Update Tab

Current Version number - Text Element
Check for Updates Automatically - Checkbox Java Tab

View Runtime versions and settings
View - Button

## Security Tab

Enable Java Content in the Browser - Checkbox
Security levels - Radio Buttons

## Advanced Tab

Not going to cover. For Advanced Users only. Checkboxes and

Radio Buttons.

# Keyboard

Four Tabs. Click Dot above Tab Name on Braille Display to choose it. Right Arrow to Body of Tab.

## Keyboard Tab

Key Repeat Slider
Delay Until Repeat - Slider

Off -Text Element for Key Repeat
Slow - Text Element for Key Repeat
Fast - Text Element for Key Repeat

Long - Text Element for Delay Until Repeat
Short - Text Element for Delay Until Repeat

Show Keyboard, Emoji, & Symbol Viewers in Menu Bar - Checkbox

Change Keyboard Type - Button
Set Up Bluetooth Keyboard - Button
Modifier Keys - Button

## Text Tab

Table with a Replace Column and a With Column
These columns act as rows and go from left to right.

Correct spelling automatically - Checkbox

Spelling - set by language - Pop Up Button

Use Smart quotes and dashes - Checkbox
For Double Quotes - Pop Up Button
For Single Quotes - Pop Up Button

Plus - Button
Minus - Button

# Shortcuts Tab

## Table 1

Launchpad & Dock
Display
Mission Control
Keyboard
Screen Shots
Services
Spotlight
Accessibility
App Shortcuts

## Vertical Splitter

## Table 2

Changes based on highlighted item in Table 1.

Click on or off Key combinations for actions.
This also a place to change basic key combinations for certain actions.

Restore Defaults - Button

Full Keyboard Access - Tab key moves keyboard focus.
Text Boxes and Lists only - Radio Button - 1 of 2
All Controls - Radio Button - 2 of 2

## Input Sources Tab

Table - US Flag

Keyboard Picture - HTML Content

Plus - Button
Minus - Button

Show Input Menu in Menu Bar. - Checkbox

# Language & Region

Flag - Image
Text Element

Table: Preferred Language

Region - Pop Up Button
First Day of the Week -Pop Up Button
Calendar - Pop Up Button
Time Format - Checkbox
Several Text Elements

Plus - Button
Minus - Button

Keyboard Preferences - Goes to Keyboard Panel - Button
Advanced - Button
Opens a Three Tabs Panel. Click Dot above Tab Name on Braille
Display to choose it. Right Arrow to Body of Tab.

# General Tab

Format language - Pop Up Button
Numbers Separator Grouping and Decimal choices - Combo
Boxes
Currency type - Pop Up Button
Currency Grouping and Decimal - Combo Boxes
Measurement Units - Pop Up Button

Combo boxes - C6 to Interact and change it. I cannot figure out
how to get to the drop down List for the combo box from the Braille
display. Once in the combo box, the keyboard commands can be
used to access the drop down box. Keyboard commands are:
Control - Option - Space.

# Dates Tab

C6 to Interact with a line of text.
Click on the display to open a drop down menu to change a specific item
Arrow down through the choices
Click Button on display to choose it
C4 to Stop Interacting with this text field
Moveable Elements

# Times Tab

C6 to Interact with a line of text.
Click on the display to open a drop down menu to change a specific item.
Arrow down through the choices.
Click Button on display to choose it.
C4 to Stop Interacting with this text field.
Moveable Elements

Before Noon - type in text changes
Afternoon - type in text changes

# Mission Control

Expose Image
Text Element

Automatically rearrange Spaces based on most recent use - Checkbox
When switching to an application, switch to a Space with open windows for the application. - Checkbox
Group windows by application - Checkbox
Displays have separate Spaces. - Checkbox
Dashboard - Pop Up Button

Keyboard and Mouse Shortcuts (adjustable) - Text Element
All of the below have two Pop Up Buttons a piece. First controls the keyboard command. The second controls the mouse Button Control. Click Button on display to open pop up Buttons.
Mission Control
Application windows
Show Desktop
Show Dashboard

Hot Corners adjustable. It allows the mouse reaching corners to act as if a keyboard command had been entered. - Button

# **Mouse**

Tracks left to right ignoring vertical line

Scroll Direction: natural - Checkbox

Tracking speed - Slider
Slow - Text Element
Fast - Text Element

Scrolling speed - Slider
Slow - Text Element
Fast - Text Element

Double-Click speed - Slider
Slow - Text Element
Fast - Text Element

Primary mouse Button
Left - Radio Button
Right - Radio Button

Set up Bluetooth mouse - Button

# Network

Location: Automatic - Pop Up Button

Table Listing devices that use WiFi that have been connected to the computer.
C6 to Interact with Table.
Down Arrow to reach devices. Section on right panel will change based on device chosen. Individual devices not covered in this manual. use your knowledge of Buttons, Checkboxes, Pop Up Boxes, Radio Buttons, and Text Elements to Interact with these options.

Plus - Button
Minus - Button
Gear - Menu Button

Table 2

Status
Turn Wi-Fi Off or On - Button

Network Name: Pop up Button
Ask to join new networks - Checkbox

Show Wi-Fi status in menu bar - Checkbox

Advanced Button - Contains Computer Name
Not going to be covered. Too many options that need specialized computer knowledge.

Assist me Button
Revert - Button
Apply - Button

# Notifications

Below Tables
Notification Center sort order - Pop Up Button

# Table 1

A List of programs on your computer that you can choose to show in a notification center panel on the desktop. Table 2 changes based on the highlighted choice in Table 1.

Includes, though not limited to:
Calendar
Facetime
Family
Game Center
iTunes
Mail
Messages
Notes
Photos
Reminders
Safari

# Table 2

For Do Not Disturb Choice Only

Turn on Do Not Disturb Notifications - Text Element
Do Not Disturb Button And an Image
Banners and alerts will be hidden and notification sounds will be silenced - Text Element

Turn on Do Not Disturb - Text Element
From - Checkbox
C6 to Interact with Time Fields.
All arrow keys work to adjust time fields.
C4 to Stop Interacting with Time Fields.
Time - Time Field
to- Text Element
Time - Time Field
When the display is sleeping - Checkbox
When mirroring to TVs and projectors - Checkbox

When Do Not Disturb is turned on: - Text Element
Allow calls from everyone - Checkbox
Allow repeated calls - Checkbox

# Table 2 for most other Apps

Calendar Alert Style: Text Element
None - Radio Button
Banners - Radio Button
Alerts - Radio Button
Banners appear in the upper-right hand corner and go away
automatically. Alerts stay on screen until dismissed. - Text Element

Mail and Messages only:
Show Notifications on Lock Screen - Checkbox
Show Message Preview - Checkbox

All Apps:
Show in Notification Center: - Checkbox
Number of Recent Items - Pop Up Box
Badge app Icon - Checkbox
Play Sound for notifications - Checkbox

# Parental Controls

This screen will vary. Will not be covered. Part, or all, of this screen contain locked elements. How to click lock to make changes: Click Button on display above the word Click. Please use your knowledge of Buttons, Checkboxes, Navigation, Pop Up Boxes, Radio Buttons, and Text Elements to Interact with these Tabs.

# Printers & Scanners

Two Tabs. Click Dot above Tab Name on Braille Display to choose it. Right Arrow to Body of Tab.

## Table 1

List of available printers and scanners
C6 to Enter Table and choose a printer or scanner
C4 to exit Table.

## Table 2

## Print Tab

Printer Icon - Image
Open Print Queue - Button
Options & Supplies - Button
Location, Kind, Status - Text Elements

Share this printer on the network - Checkbox
Sharing Preferences - Button

Default printer - Pop Up Button
Default paper size - Pop Up Button

## Scan Tab

Printer Icon Image - Button
Open Scanner

# Security & Privacy

An advanced set of Tabs. Do not make changes unless you know what you are doing.

Four Tabs. Click Dot above Tab Name on Braille Display to choose it. Right Arrow to Body of Tab.

Part, or all, of this screen contain locked elements. How to click lock to make changes: Click Button on display above the word Click.

## General Tab

Login passwords
Set Password - Button
Require Password - Checkbox
Interval time - Pop Up Button - 5 minutes
Show message when screen is locked - Checkbox
SetLock Message - Button
Disable Automatic Login - Checkbox

Allow apps downloaded from three options
Mac App Store - Radio Button - 1 of 3
Mac App Store and Identified Developers - Radio Button - 2 of 3
Anywhere - Radio Button - 3 of 3

## Firevault Tab

Encrypts the data on your computer.

Turns on or off - Button

## Firewall Tab

Affects incoming connections

Turn on or off Firewall - Button
Firewall Options - Button

# Privacy Tab

Advanced Button is greyed out without lock being clicked to open.

## Table 1

Locations Services
Contacts
Calendars
Reminders
Accessibility
Diagnostics & Usage

## Table 2

Varies based on choice in Table 1.

## Location Services

Enable Location Services - Checkbox
Text Element
Table with rows C6 to Interact
System Services - Button
C4 to exit Table
Arrow - Image -
Indicates an app that has requested your location in the last 24
hours.

About Location Services & Privacy - Button

## Contacts

Allow the apps below to access your contacts - Text Element
Table - C6 to Interact
Rows of apps - Checkboxes

## Calendars

Apps that have requested access to your calendar so will appear

here. - Text Element

## Reminders

Apps that have requested access to your reminders will appear here - Text Element

## Accessibility

Allow the apps below to control your computer - Text Element
Table with Checkboxes. - C6 to Interact and C4 to Stop Interacting

## Diagnostics and Usage

Send Diagnostic Usage data to Apple - Checkbox
Share Crash data with app developers - Checkbox
About Diagnostics and Privacy - Button

# Sharing

Computer Name - Edit Text
Edit - Button

Table - C6 to Enter Table of Checkboxes
The Checkbox that is last highlighted, will determine what is in the right panel.

Screen Sharing
File Sharing
Printer Sharing
Remote Login
Remote Management
Remote Apple Events
internet Sharing
Bluetooth Sharing

## Screen Sharing Panel

Screen Sharing: Off - Image
Computer Settings - Button

Allow Access for:
All users - Radio Button - 1 of 2
Only these users - Radio Button - 2 of 2

Table
Plus - Button
Minus - Button

## File Sharing Checkbox

File Sharing Off - Image
Vertical Splitter
Options - Button
Shared Folders Table -
Users Table - With Pop Up Buttons for Read Only or Read/Write

# Printer Sharing Checkbox

Open Printers & Scanners Preferences - Button
Printers - Table with Checkboxes for Printers
Users - Table with Printer Function Pop Up Button

# Remote Login Checkbox

Remote Login Off - Image
Allow Access for - Text Element
All Users - Radio Button
Only These Users - Radio Button
Table - with an Image

# Remote Management Checkbox

Remote Management - Off - Image
Computer Settings - Button
Also Access for - Text Element
All Users - Radio Button
Only These users - Radio Button
Table
Options - Button

# Remote Apple Events Checkbox

Remote Apple Events Off - Image
Allow Access for - Text Element
All Users - Radio Button
Only these users - Radio Button
Table

# Internet Sharing Checkbox

internet Sharing Off - Image
Share your connection from - Text Element
Wi-Fi and other options - Pop Up Button
To computers using - Text Element
Table with Checkboxes

# Bluetooth Sharing Checkbox

Bluetooth Sharing Off - Image
When receiving items (Accept and Save or Accept and Open, Ask what to do, Never Allow) Pop Up Button
Folder for accepted Items - Pop Up Button
When Other devices Browse - (Accept and Open, Ask what to do, Never Allow) - Pop Up Button
Folder Others can Browse - Pop Up Button
Open Bluetooth Preferences - Button

# Sound

Three Tabs. Click Dot above Tab Name on Braille Display to choose it. Right Arrow to Body of Tab.

On all three Tabs:
Output Volume - Text Element
Mute image
Output volume - Slider
Maximum Volume Image
Mute - Checkbox
Show Volume in menu bar - Checkbox

## Sound Effects Tab

Table with a List of sounds - not covering.

Play sound effects through:
Internal or external speakers - Pop Up Button

Mute Volume Image

Alert volume - Slider
Maximum volume -Image
Play user interface sound effects - Checkbox
Play feedback when volume is changed. - Checkbox

## Output Tab

Table - C6 to Enter Table
Internal Speakers
External Speakers

## Input Tab

Table
Line in - audio line-in port
Input Image of a microphone
Input volume - Slider
Input Image - Full microphone

Input level - Visible Slider

# Spotlight

Two Tabs. Click Dot above Tab Name on Braille Display to choose it. Right Arrow to Body of Tab.

Spotlight Image of a magnifying glass
Text Element

Keyboard Shortcuts - Button

About Spotlight Suggestions & Privacy - Button

## Search Results - Tab

Select categories that will show up in Spotlight searches - Text Element

Table - C6 to Interact with Table of Checkboxes
This List will vary based on your computer application choices
Applications
Bookmarks & History
Calculator
Contacts
Definition
Developer
Documents
Events & Reminders
Folders
Images
Mail & Messages
Movies
Music
Other
PDF Documents
Presentations
Spotlight Suggestions
Spreadsheets
System Preferences

Allow Spotlight Suggestions in Spotlight and Look up - Checkbox

# Privacy Tab

Empty Table. Add places you don't want Spotlight to Search

Plus - Button
Minus - Button

# Startup Disk

Part, or all, of this screen contain locked elements. How to click lock to make changes: Click Button on display above the word Click. Leave alone, unless you have advanced computer knowledge.

Hard Drive- Radio Button

Restart Button - Button

Target Disk Mode Button

Also Text Elements on this screen

# Time Machine

Image Title

Time Machine Off - Button
Off/On - Checkbox
On - Button

Text Element that explains Time Machine

Select Backup Disk - Button
Show Time Machine in menu Bar - Checkbox
Options Button which allows for older backups to be deleted.

# Trackpad

Three Tabs. Click Dot above Tab Name on Braille Display to choose it. Right Arrow to Body of Tab.

Connects to a Trackpad. Each Tab contains Checkboxes with adjustable gesture Menu Buttons

Mighty Mouse Image
Text Element

Trackpad battery level - Text Element
Image of a battery
Battery Percentage - Text Element
Set up Bluetooth Trackpad - Button

# Point & Click

Look up & data detectors
Secondary click
Tap to click
Tracking speed - Slider

# Scroll Zoom

Scroll Direction Natural
Zoom in and Out
Smart Zoom
Rotate

# More Gestures

Tutorial Video Image
Checkboxes with adjustable gesture menu Buttons
Swipe Between Pages
Swipe between full-screen apps.
Notification Center
Mission Control
App Expose
Launchpad

Show Desktop

# Users & Groups

Three Tabs. Click Dot above Tab Name on Braille Display to choose it. Right Arrow to Body of Tab.

Part, or all, of this screen contain locked elements. How to click lock to make changes: Click Button on display above the word Click. Be careful making changes on these screens. Only make changes you are sure of.

## Password Tab

List - C6 to Interact. Down Arrow to Desired Item.
Current Users
Other Users
Login Options - Group
Automatic Login Name - Pop Up Button
Display Login Window As:
    List of Users (Radio Button)
    Name and Password (Radio Button)
Show the Sleep, Restart, and Shut Down Buttons Checkbox
Show In Menu in login widow - Checkbox
Show Password hints - Checkbox
Show fast user Switching menu as : full name - Pop Up Button
Use VoiceOver in the login window - Checkbox
Network Account Server (Text Element) Join - Button
Plus - Button
Minus - Button
Gear - Master Password Settings - Button
Empty Button
Lock - Button
Click the Lock to make changes - Button
Question mark - Help Button

# Password Tab

User Picture - Button
User Name - Text Element
Change Password - Button

Contacts Card - Text Element
Open - Button - Checkboxes
Parental Controls - Button

# Login Items Tab

Table that contains programs that open on startup.
Plus - Button
Minus - Button

# Text Edit

## Locate

The Text Edit Program looks like a piece of lined paper with a grey pen across the right hand side.

C1 + C4 + C5 (Go to Dock).
Right Arrow to Text Edit.
Click Dot above word Text Edit on Braille Display to choose it.

Or:

C1 + C4 + C5 (Go to Dock).
Right Arrow to LaunchPad.
Click Dot above word Launchpad on Braille Display to choose it.
Right Arrow to Text Edit.
Click 3 + 6 + Space to choose Text Edit.

## Orientation to Text Edit

### Top Row

Close - Button
Minimize - Button
Name - Button
Document Arrow - Menu Button

## Next Row

Paragraph Style - Menu Button
Font - Pop Up Button
Type - Pop Up Button
Size - Combo Box
Color - Color Well
Text Color - Color Well
B - Bold - a Group of Checkboxes
I - Italics - a Group of Checkboxes
U - Underline a Group of Checkboxes
Left - Text Alignment Radio Group of Radio Buttons 1 of 3
Center - Text Alignment Radio Group of Radio Buttons 2 of 3
Right Justify - Text Alignment Radio Group of Radio Buttons 3 of 3
Line Spacing - Pop Up Button
Bullets - List Style Menu Button

## Next Row

Scroll Area which includes a Ruler and a Text Area.

## Navigating Text Edit

Brings up Mac Finder Window
C4 - Stop Interacting with Scroll Area.
Up Arrow to New Document (At bottom left corner).
Click Dot above word New Document on Braille Display to choose it.

Type in body of Text Document.

Text Commands such as Select, Copy, and Paste do not seem to work.
C4 to Stop Interacting with "Scroll Area" (Text area).

## To Choose Paragraph Style (Menu Button)

Click Dot above Paragraph Style on Braille Display to choose it.

Down Arrow to Chosen Paragraph Style.
Click Dot above chosen Style on Braille Display to choose it.
There is also a PopUp available to tab through and choose more complicated styles.

## To Choose Font (Pop Up Button)

Right Tab to Font Family
Click Dot above word Font on Braille Display to choose it.
Click Down Button to chosen Font.
Click Dot above chosen Font on Braille Display to choose it.

## To Choose Typeface (Pop Up Button Regular, Bold)

Right Tab to Typeface
Click Dot above word Typeface on Braille Display to choose it.
Click Down Button to chosen Typeface.
Click Dot above chosen Typeface on Braille Display to choose it.

## To Choose Font Size (Combo Box)

Right Tab to Font Size
3 + 6 + Space
Down Button to Desired Size
3 + 6 + Space to Choose Desired Size
C4 to Stop Interacting with Combo Box.

## To Choose Text Color (Color Well)

Click Dot above Text Color on Braille Display to choose it.
Right Arrow to Color Choice.
C4 To Stop Interacting with Toolbar.
C6 To Start Interacting with Table.
Down Arrow to Color Choice.
Click Dot above chosen Color on Braille Display to choose it.
C4 To Stop Interacting with Table.
Up Arrow to Close Button.
Click Dot above Close on Braille Display to choose it.

## Text Style (Bold, Italic, Underline) (A Group of Checkboxes)

   C6 to Start Interacting
   Right Tab to Choose Text Style.
   Click Dot above chosen Text Style on Braille Display to choose it.
   C4 to Stop Interacting with Scroll Area (Text Alignment).Text
Alignment (A Radio Group of Radio Buttons)
   C6 to Start Interacting.
   Right Tab to Choose Alignment Type.
   Click Dot above chosen Alignment Type on Braille Display to
choose it.
   C4 to Stop Interacting with Scroll Area (Text Alignment).

## Choose Line Spacing (Single, 1.5, or Double) (A Pop Up Button)

   Right Tab to Line Spacing.
   Click Dot above word Line on Braille Display to choose it.
   Click Down Button to chosen Line Spacing.
   Click Dot above chosen Line Spacing on Braille Display to choose
it.

## Choose Bullet Style (List Style Menu Button)

   Right Tab to Bullet style.
   Click Dot above word Bullet on Braille Display to choose it.
   Click Down Button to chosen Bullet Style.
   Click Dot above chosen Bullet Style on Braille Display to choose
it.

## To Name File (A Button with a Menu Button Beside it)

   Right Tab to Name Location.
   3 + 6 + Space
   Delete Carefully (Don't know how on display)
   Type Name (Leaving file type).
   Right Arrow Twice
   Click Dot above Where on Braille Display to choose it.

Down Arrow to Location
Click Dot above Location on Braille Display to choose it.
8 + Space to enter and save item in Location.

# Braille Display Commands

| Braille Command | VoiceOver Action |
|---|---|
| C1 | Move Up |
| C1 + C2 + C4 + C5 | Contracted / Uncontracted Braille |
| C1 + C3 + C4 | Menu Bar |
| C1 + C3 + C4 + C5 | Display Announcement History |
| C1 + C4 + C5 | Dock |
| C1 + C5 | Escape |
| C2 | Pan Left |
| C3 | Move Down |
| C4 | Stop Interacting with Item |
| C5 | Pan Right |
| C6 | Start Interacting with Item |
| Up | Up |
| Down | Down |
| Left | Left |
| Right | Right |
| Router | Default Action for Current Item |
| Status Router | Expand Status Description On / Off |
| | |
| 1 + 2 + 3 + 4 + 5 + 6 + Space | Toggle Screen Curtain on and off |
| 1 + 2 + 3 + 4 + 5 + Space | Quick Nav |
| 1 +2 +3 +4 +6 | Label Item |
| 1 + 2 + 3 + 4 + Space | Pause or continue speech |
| 1 + 2 + 3 + 5 + Space | Read Contents of VoiceOver Cursor |
| 1 + 2 + 3 + 6 + 7 + 8 + Space | Find Previous Control |
| 1 + 2 + 3 + 6 + 7 + Space | Find Next Text Field |
| 1 + 2 + 3 + 6 + 8 + Space | Find Previous Button |
| 1 + 2 + 3 + 6 + Space | Actions |
| 1 + 2 + 3 + Space | Go to Beginning |
| 1 + 2 + 4 + 5 + Space | Contracted and Uncontracted braille |
| 1 + 2 + 4 + Space | Find |
| 1 + 2 + 5 + Space | Open VoiceOver Help Menu |
| 1 + 2 + 6 + Space | Volume Down Button |
| | |

| | |
|---|---|
| 1 + 2 + Space | Escape |
| 1 + 3 + 4 + 5 + Space | Toggle Announcement History |
| 1 + 3 + 4 + Space | Mute VoiceOver |
| 1 + 3 + 5 + 6 + 7 + 8 + Space | Click Mouse |
| 1 + 3 + 5 + 8 + Space | Fast Forward |
| 1 + 3 + 6 + 8 + Space | Find Previous Text Field |
| 1 + 3 + 6 + Space | Open VoiceOver Utility |
| 1 + 3 + 7 + Space | Keyboard Help |
| 1 + 3 + Space | Keyboard Help |
| 1 + 4 + 5 + 6 + Space | Scroll down one page |
| 1 + Space | Move to previous item (Left) |
| 2 + 3 + 4 + 5 + Space | Tab |
| 2 + 3 + 4 + Space | Menu Bar |
| 2 + 3 + 6 + Space | Start Interacting |
| 2 + 3 + Space | Select previous rotor setting |
| 2 + 4 + 5 + 6 + Space | Read from Beginning |
| 2 + 4 + 6 + Space | Dock |
| 2 + 4 + Space | Item Chooser |
| 2 + 5 + 6 + 7 + Space | DeskTop |
| 2 + 5 + 6 + Space | Select Text |
| 2 + 5 + Space | Open Short Cut Menu (Right Mouse Click) |
| 3 + 4 + 5 + 6 + Space | Scroll up one page |
| 3 + 4 + 5 + Space | Volume Up Button |
| 3 + 4 + Space | Speak Current page in Scroll Area |
| 3 + 5 + 6 + Space | Stop Interacting |
| 3 + 6 + Space | Default Action |
| 4 + 5 + 6 + Space | Go to End |
| 4 + 5 + Space | Translate Braille |
| 4 + Space | Move to next item (Right) |
| 5 + 6 + Space | Select next rotor setting |
| 6 + Letter | Capitalize |
| 7 + Space | Delete |
| 8 + Space | Return |

# VoiceOver Commands

This section is intended to only cover basic VoiceOver Commands - primarily by regular keyboard - not braille display.

## To Turn on VoiceOver: Command (CMD) + F5

VoiceOver Using the NumPad - These commands work well with the braille display as they are all in one small square. With the NumPad you can reach commands the braille display is not capable of completing without assistance. These commands are adjustable in the System Preferences Panes - Accessibility - VoiceOver Utility - Commanders - NumPad.

1 Item Chooser
2 Move Down
3
4 Move Left
5 Perform Action for Item
6 Move Right
7 Stop Interacting with Item
8 Move Up
9 Start Interacting with Item
Num Lock - Go to Dock
= Go to Menu Bar
/ Open Window Chooser
* Go to Desktop
- Open VoiceOver Help Menu
+ Open Shortcut Menu
. Escape

An easy way to envision this set of keys - 8, 4, 6, 2 are set up as arrow keys. Up, Left, Right, Down.

5, 7, and 9 are Interaction keys. With the 5 acting like an enter key.

The outer keys open various menus. In clockwise order - Dock, Window Chooser, Desktop, VoiceOver Help, Shortcut Menu, Menu Bar, Escape. 1 key is the Item Chooser.

Control Key + NumPad 5 = Click Mouse.

One way to set up the NumPad and other keys is to have a dedicated set for Web Page exploration, and another for writing and editing.

For Instance: NumPad Zero plus various numbers will allow me to search webpages by Link, Heading, Web Spot, Control, Image, Table, and even turn the Rotor on and off.

Writing and editing commands, such as Read Character, Line, Word, and Text Attributes, are set up with the Command Key plus the NumPad number.

Apple provides a 4 page set of pictures of VoiceOver commands mapped onto a keyboard. Each set has its own page. Only a few will be covered in this manual.

Control + Option
Control + Option + Shift
Control + Option + Command
Control + Option + Command + Shift

Control + Option is most of the basic commands
Control + Option + W - Read a Word
Control + Option + U - Web Rotor
Control + Option + I - Item Chooser
Control + Option + D - Go to Dock
Control + Option + F - Find Text
Control + Option + H - VoiceOver Help Menu
Control + Option + J - Jump to linked item. Used in Email Program.
Control + Option + K - Keyboard Help
Control + Option + X - Activity Chooser
Control + Option + V - Verbosity Rotor
Control + Option + M - Menu Bar
Control + Option + Space Bar - Perform Default Action

Control + Option + Shift are a combination of commands

Control + Option + Shift + A - Select Text in VoiceOver cursor
Control + Option + Shift + D - Move to Desktop
Control + Option + Shift + N - Read Item Hint

Control + Option + Shift + M - Shortcut Menu
Control + Option + Shift + Space bar - Mouse click or double click
Control + Option + Shift + Up Arrow - Stop Interacting
Control + Option + Shift + Left Arrow - Previous Character
Control + Option + Shift + Down Arrow - Start Interacting
Control + Option + Shift + Right Arrow - Next Character

Control + Option + Command are mostly Find Next writing and editing commands
Control + Option + Command + E - Next misspelled word
Control + Option + Command + Y - Next Column
Control + Option + Command + U - Next Underlined Text
Control + Option + Command + I - Next Italic Text
Control + Option + Command + O Next Font Change
Control + Option + Command + P - Next Plain Text

Control + Option + Command + Shift are mostly Find Previous writing and editing commands

Control + Option + Command + E - Previous misspelled word
Control + Option + Command + Y - Previous Column
Control + Option + Command + U - Previous Underlined Text
Control + Option + Command + I - Previous Italic Text
Control + Option + Command + O Previous Font Change
Control + Option + Command + P - Previous Plain Text

Some basic Keyboard commands that work with and without VoiceOver:

New Document - Command + N
Open A Document - Command + O

Find Text - Command + F
Copy - Command + C
Paste - Command + V
Undo - Command + Z
Redo - Command + Shift + Z

Screenshot - Command + Shift +3 (Must be the 3 above the W and E, not the NumPad 3.

Save - Command + S

Save As - Command + Option + Shift + S

   Lists are available on the internet that cover cursor movement, text selection, formatting, editing, and web browsing. Web browsing was updated in 2015. Some lists may still contain older information.

### ###

   Thank you for reading VoiceOver with the Brailliant Display. I hope this manual has encouraged you on your journey toward independent reading and writing with VoiceOver, with, or without, a braille display. If it helped you, please take a moment to leave me a review at your favorite online retailer and share it on social media. Choose another fiction, or nonfiction, title to explore on your journey through the myths society has encouraged us to live by.

   Thanks!

   April D Brown

# About the Author

Overcome adversity by uncovering the societal myths around us. Reach for hidden and lost opportunities along brighter horizons as fields of vision and hearing decrease for April D Brown. Follow her journeys through the forgotten myths to uncover hope and peace in forgotten places.

Writing isn't as easy now. Words sometimes disappear in the midsts of the mind and time as sounds change meaning, and sights decrease to a blur. Mind pictures bring myths to life. Many fracture along the spines of forgotten hopes and dreams. New myths may emerge.

Whether looking for self-help, or fiction to forget your troubles for a time, there is a book among her collection to enjoy.

Her novels and novellas, while adventures, are written in a more classical style, without extreme action, romance, or violence. Characters think before they act. They bring the past, present, and future, alive in the minds of the reader through the eyes of characters who would rather not face the challenges in front, or behind them. Sometimes, this leads to trouble.

With the support of cats, dogs, and art, she reaches out to assist others on the path to a better future for all. Drawing, painting, sewing, knitting, crocheting, and mixing the mediums when needed, add color to the words as they find their places in the stories. Gardening, cooking, and organizing build a structure to each project.

# Other Books by April D Brown

## Available Adventure Titles

### Crosswinds: Past, Present, and Future Combine - May 2014

   Terra is always outside, looking in. No true connection to anyone, anywhere, except for one city friend.

   She expects the village life stories from the elders to be simple and routine. Never has she been expected to participate in the village life. Sure. She's rocked a baby, cooked a meal, shared memories. No more, until now.

   This village of people lost between cultures is different. Their fragmented stream of life sweeps her off her feet, and threatens all she knows of her own past, and future.

   Some villagers wish the whole village to flounder on the border of the only homeland they know. She must tame the stream back into its banks, and strengthen it for the future.

   Terra risks her past, future, and one friendship in the world, to try to rescue this village. And the children she has begun to call her own.

### Echo Lives - June 2020

   As the birth of her first child nears, Kalara is plagued by dreams she doesn't understand. They assert themselves in her drawings. Pictures of people and places that disappeared after the Devolution War.

   Shalin dreams of peace, and the world Kalara lives in. Of beauty and calm. Species of plants and animals she didn't know could exist. That peace brings her hope. Keeps her going through poverty, and fear, as her son faces punishing challenges.

   Leonard has the same ties as his mother, Kalara. However, he begins to recognize, with the help of friends, that all isn't as peaceful as it seems in Galataria. The connection he plans to build to Jendal, is forgotten, for awhile.

   For Jendal, the dreams of Leonard, and his ability to be accepted in his community, keep him going, hoping, trying to make Earth as

peaceful as the world he can't quite reach.

# Mirror Worlds - June 2018

Stay safe from the Evacuation Zone with Peanut Butter and Jelly while visiting the Isolations Worlds or Planet Loreia in Gamma Zaria. Molly's Second Chance in the Meadow Race leads to Summer on Solar Life.

While I Don't Mean You is intended to be encouraging, it often leads to Better Forgotten Memories as the Status Quo, or No shifts. Nerissa's Legacy gives us A Fair Beginning with Prince Charming, in a life where the Safe Place is home.

As our world struggles to survive, and to find A Measure of Life, filled with Painted Paper, will we build Glasses Houses, or Cycle through our lives? Adult Orphanages, and Finally Family may become reality, instead of Second Place.

Will Broken Dogma lead us to Cluster? Or will The Gift allow us to encourage Going Hunting while Saving the Family Farm with (or without) the Written Word?

# Shifting Horizons - May 2015

Tammy's best friend Genell pushed her away from the horse farm where they had practically grown up together. Tammy moved to the city to explore college and find a future while mourning her life-long friend.

Only, her life twists in ways she never knew were possible. Without the farm to sneak across the creek to, Tammy takes a part time job to keep her mind busy. Until she is too sick to work. Secrets have been hidden from her, many in plain sight. Some secrets her family thought she knew. Others, they hoped would never affect her.

Tammy's plans for her future change as secrets are revealed. Everything she thought she knew about herself, her family, and her neighbors falls apart around her. Becoming an adult, and building a future, will mean forging an unexpected bond.

# Trails Series

## Trails 1: Fault Lines - 2014

Pair 1, Book 1

A devastating cascade of earthquakes strike New Mexico's forgotten fault lines. Quakes spread across the continent. Fumeroles emerge in unknown hotspots. As the continental plates shift, so do the lives of Amber and Alex as they struggle to find firm ground in the altered landscape. Their search for the source of the quakes leads them to an inaccessible volcanic plain in the one place they don't want to go.

Aftershocks spread through the land, changing communities, forcing most to flee for their lives. The world as Amber and Alex knew crumbles around them. Family and friends missing. Communications fail. Society as they knew it, teeters on the brink of collapse.

## Trails 2: Volcano - 2015

Pair 1, Book 2

Oceans heave as the Ring of Fire bursts with increased activity. Continental plates shift, rip apart, and bounce against each other. Amber and Alex assist rescue and relocation efforts, while searching for missing friends and family members.

Power plants shut down after the electric grid crashed with little hope of repair. With phones down, communication is limited to short wave radio. Remaining fuel is reserved for the military for evacuations north of the volcanic and earthquake activity.

Desperate men roam the streets of the towns where most have evacuated. As communities melt apart as societal walls rise. Men, women, and cultures clash as if they had never learned to live together in peace.

Together, the survivors must build a future in a tangled environment of fear, hunger, cold, and desolation.

# Trails 3: Tales - 2015

Pair 2, Book 1
Time: 200 years in the future

Roamers appear from the unknown lands. Fear spreads, as the dig leader of Webbel adjusts the rules one too many times. When did travel beyond Klapit end? Why did the leader choose to send the members of the other villas away before the dig season began? The community splits as the specter of violence from the tales of their ancestors appears in their midst.

Zella and Tanna must both fight an evil so great, it only exists in campfire tales. Trauma everyone thought was long forgotten, and would never return to disturb the peace of their villas has returned. Zella must slip out of hiding to save herself, and the rest of the community leaders. Tanna must reach through the fog of fear to find leadership qualities she didn't know she possessed.

# Trails 4: Mines - 2016

Pair 2, Book 2
Time: 210 years in the future

Klapit mine abandoned to the ghosts. Shelpit mine nearly empty after half a generation. The orphans are now adults, struggling to find a future in Shells.

Corandra feels her ancestors have cursed her. Which seems to be proven when she digs up a box in a forbidden location that brings a devastating illness to the villa.

Rusty fears her future as the dig leader is at stake because the mine she found as a child is now empty. With no practicable skill, she has no guaranteed place among the villa.

Ambrena's foster sister/mother Tanna fears Tanna's daughters will replace her as apprentice healer in the villa. Leaving her alone, adrift, without a purpose.

Rusty and Ambrena believe they have been truly banished when they are sent together to find Corandra's mother, to bring their wayward fellow orphan sister home to Shells.

# Abuse Survivor Pair

## Bending the Bars - 2017

Anne knows she cannot leave Kyle. Believes he is the first person to never lie to her. Never will leave, once her son is born. Escaping is fraught with danger. No contact orders mean nothing to abusers. Survivors of domestic abuse know they will be tracked. And often murdered.

She has been conditioned to believe abuse is normal. Trained to believe fear, hiding, and secrets are routine for everyone.

Law prevents mothers with children from escaping, unless she abandons her children to the abuser, to keep another generation under the thumb of abuse.

Jo and Lennie won't give up trying to find Anne. To rescue her. To bring her to safety with Ruby's Law, inadequate as it is. In legal limbo land, safe from her abuser, surrounded by other survivors. Few make it out to live beyond the bars. It simply isn't safe. Abusers wait out there. Often barely beyond the fence.

## The Stork Mis-Delivered - Twice - 2017

Mistie Jolin escaped a past she'd rather forget. Buried deep. Hid the former abuse from her mind, and memory, like unwanted baggage. No one would go looking for her past if she lived up to her dreams. Paved her own way to a bright future.

Or so she believed.

People began to talk. Shadows of a past better buried stalked her every advance. She must face her fears, the past, and those she has come to trust.

Mistie's history unravels around her. She uncovers nightmare generational abuse on a scale she never imagined. Never knew she had been part of. Didn't want in her past, or future.

Knowing her true past haunts her. Hurts. Damages her present. Will those she trusted will allow her to recover and become a real person, rather than a shadow that creeps on the wall and follows her every move? Will Mistie ever trust again?

# NonFiction

## The Cookbook, Coffee, Tea, and Gluten Free - 2014

Contains:
Desserts and Grains
Meat
Vegetables
Gluten Free Resource Appendix

Do you miss meatloaf? Crave banana pudding? Enjoy fresh, warm brownies? Relish biscuits and gravy? Miss birthday cake? Yearn for homemade cookies? Dream of creamy casseroles? Long for weekend pancakes? Hunger for pizza?

They can easily be made gluten and allergy free. As tasty, if not more so, than gluten filled products. While cooking and baking gluten (and allergy) free is often as simple as leaving the grains out, boxed mixes are available for allergy safe treats. Most grain items can be found at your local grocery store. Fresh produce can be easily grown, or bought at a local farmers market.

Over 189 successful and affordable gluten (or other allergy) free recipes made with easy to find ingredients from your local store, or garden. Most recipes are grain free, and easy to cook. Enjoy cooking and eating again!

## Journey Through Life Lists - 2016

Do you remember your first job? Your first supervisor? Your first car?

Do you remember what year you graduated from high school or college, and with what GPA?

It's amazing what odd knowledge tidbits we forget that are suddenly needed for credit scores, job applications, or even loans in the future.

Trivia that either doesn't seem to matter at the time, or is misplaced in the shuffle of daily life and obligations to reach your goals. Some memories we think were only a year ago, may actually be a decade ago.

Journey Through Life Lists workbook will help you track all of this and more!

Avoid the stress at crunch time and save those memories, for yourself, your friends, and your family.

# Self-Publishing Checklist - 2018

Have you written your novel and are waiting on feedback from beta readers, editors, or agents?

Are you ready to explore the world of self-publishing before you take the next step?

Not sure self-publishing is right for you?

The Self-Publishing Checklist walks you through the step by step process of eight major self-publishing distributors!

Learn how GDPR (European spam laws) affects newsletters, blogs, emails, websites, and more. Learn the photo sizes and other recommendations for various social media sites, including Bookbub, Facebook, Instagram, LinkedIn, Pinterest, and Twitter.

There is also a list of nine newsletter sites and all of their requirements to help you share your book with world.

Whichever route you choose, traditional, small press, or self-publish, this worksheet guide has a section, or more, for you!

Caveat: Last updated June of 2019. Most sites have changed some.

## VoiceOver With the Brailliant Braille Display - 2016

Learn what a screen reader can, and cannot do. Build a step by step foundation to screen reader use with the Brailliant braille display to read, write, work, and communicate using VoiceOver on the Mac.

Familiarize unfamiliar screen reader terms in order to develop and expand knowledge. Translate spoken VoiceOver commands to braille display commands. Learn to use a computer as easily as before sight and hearing loss.

Originally published in June 2016 - VoiceOver with a Mac Mini using operating system El Capitan and a Brailliant Braille Display. Last updated for Sierra, OSX fall of 2016.

# Upcoming Titles

Parasitosis (Saving humanity from parasites)
Trails 5: Sludge (500 years of nuclear waste explodes)
Trails 6: Time (Preventing devastating tech through time travel)

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